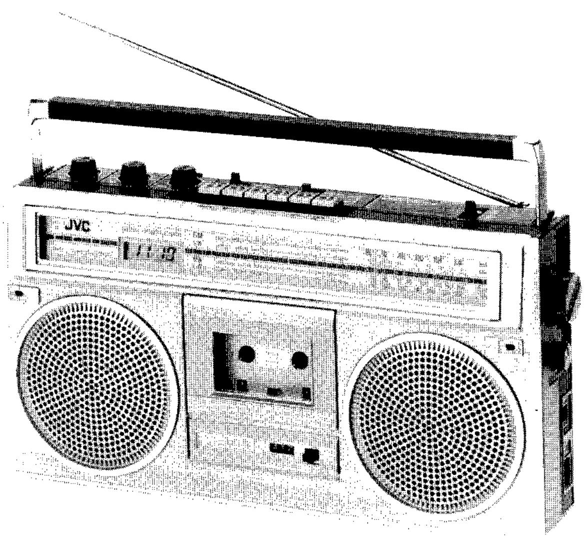
JVC

SERVICE MANUAL

MODEL
RC-555KL

FM-SW-MW-LW
4 BAND STEREO RADIO
CASSETTE RECORDER



No. 1449
March 1981

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Specifications

Semiconductors	: 7 ICs (including 2 for the microphone), 19 transistors (including 2 for the motor)
Speakers	: 12 cm (3.2 Ω) x 2

Tuner section

Frequency ranges	: FM	88 – 108 MHz
	SW	6 – 18 MHz
	MW	540 – 1600 kHz
	LW	150 – 350 kHz
Antennas	: Telescopic antenna for SW & FM Ferrite core antenna for MW & LW	

Tape recorder section

Tape	: Philips type cassette
Track system	: 4-track, 2-channel stereo
Frequency response	: 60 – 10,000 Hz
Wow & flutter	: 0.12 % (WRMS)
S/N ratio	: 40 dB
Rewind time	: Within 105 sec. (C-60 cassette)
Fast forward time	: Within 105 sec. (C-60 cassette)

Amplifier section

Power output	: Max. 6 W (3 W + 3 W) (DC) 4 W (2 W + 2 W) (DC) at 10% THD
Input jacks	: Mic x 2 (1 mV, low impedance)
Output jacks	: Ext. speaker x 2 (load impedance 3.2 ~ 8 Ω) Headphones x 1 (load impedance 8 Ω)
Input/output jack	: DIN jack
Power supply	: DC 9 V (6 "R20 (= U2)" batteries) Car battery (DC 9 V) AC 240/220/110 V, 50/60 Hz
Power consumption	: 12 W
Dimensions	: 420(W) x 230(H) x 102(D) mm
Weight	: 3.6 kg (without batteries) 4.1 kg (with batteries)

Design and specifications subject to change without notice.

Main Features

- One button recording mechanism
- Pause facility
- Auto-stop mechanism
- ALC (Automatic Level Control) mechanism
- 4 LED (Light Emitting Diode) indicators for easy checking of operation
- External speaker jacks
- Clock built-in

Names of Parts

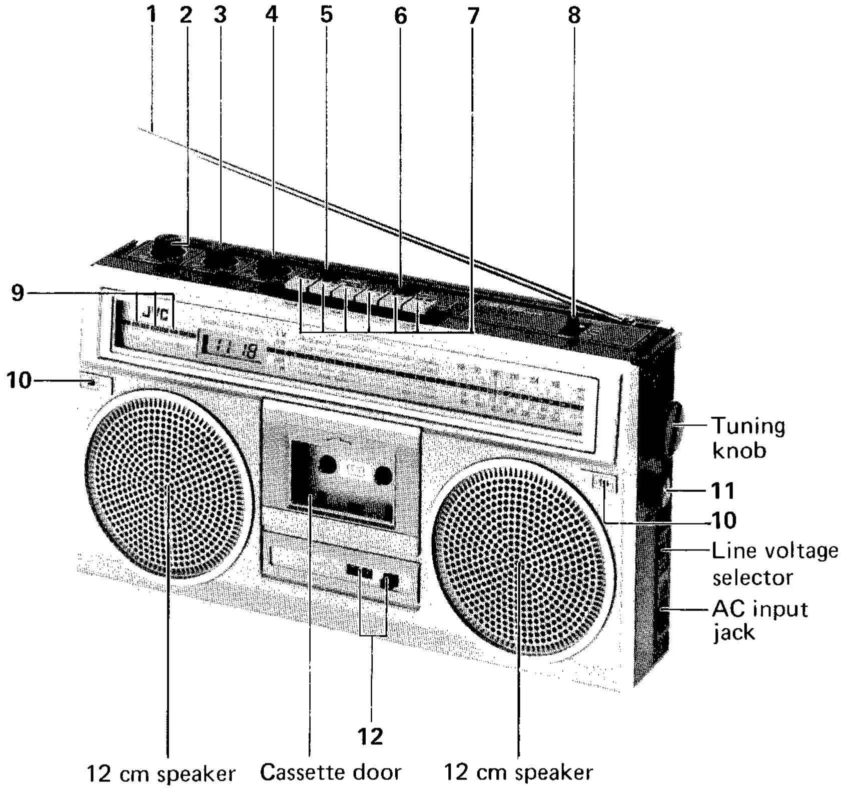

1
2
3
4
5
6
7
8
9
10
Tuning knob
11
10
Line voltage selector
AC input jack
12
12 cm speaker
Cassette door
12 cm speaker

Fig. 1

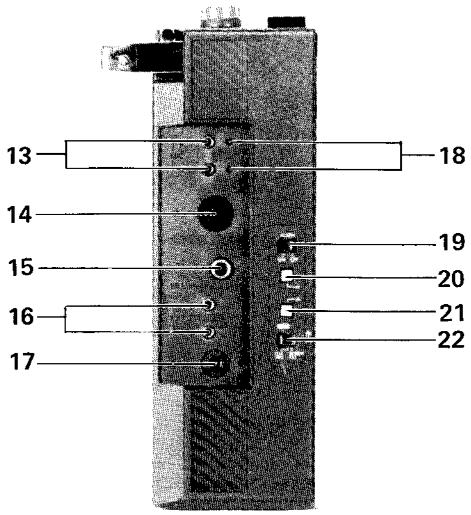

13
14
15
16
17
18
19
20
21
22

Fig. 2

1. Telescopic antenna for the reception of FM and SW broadcasts.
2. VOLUME control
3. BALANCE control
4. TONE control
5. BEAT CUT/MODE switch
   - SPEAKER REVERSE
   - STEREO
   - MONO
6. FUNCTION switch
   - DIN IN
   - RADIO
   - TAPE/RADIO STANDBY
7. Cassette operation buttons
   - PAUSE button
   - Record button (REC)
   - PLAY button
   - FF button
   - Rewind button (REW)
   - STOP/EJECT button
8. BAND select switch (FM/SW/MW/LW)
9. Indicators (LED's)
   - BATT
   - REC
   - TUNE
   - FM STEREO
10. Built-in condenser microphones
11. FINE TUNING knob
12. Tape counter with reset button
13. Microphone jacks (MIC)
14. DIN jack (REC/PB)
15. Stereo headphone jack (HEADPHONES)
16. External speaker jacks (EXT SPEAKER 3.2~8Ω)
17. External DC power jack (DC 9 V)
18. Dummy holes
19. Alarm ON/OFF switch
20. Hour adj. button
21. Minute adj. button
22. Alarm time adj. switch

Main Parts Location

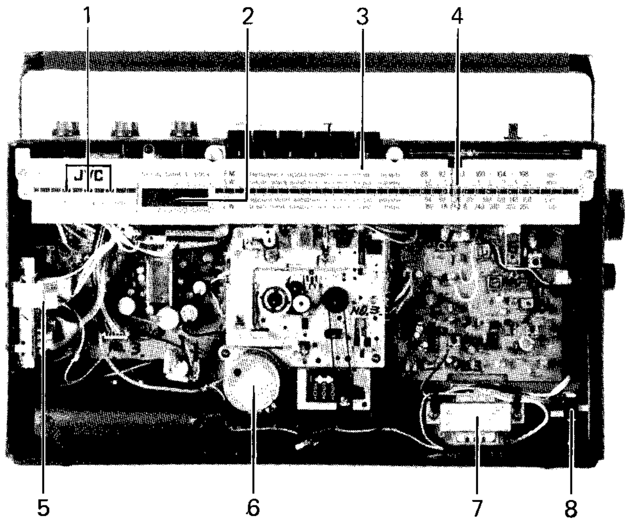


Fig. 3

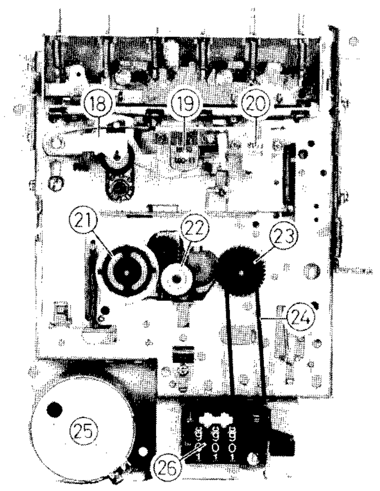


Fig. 5

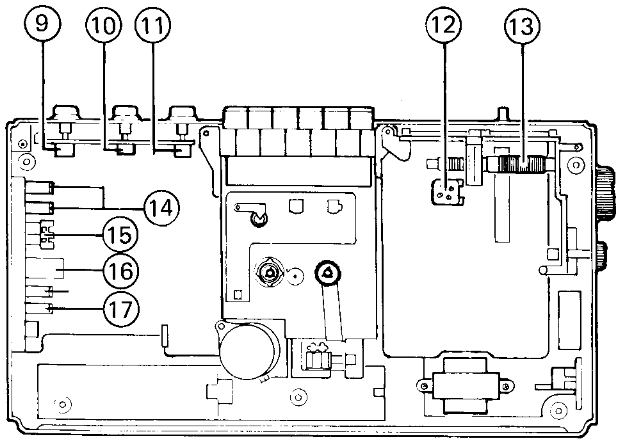


Fig. 4

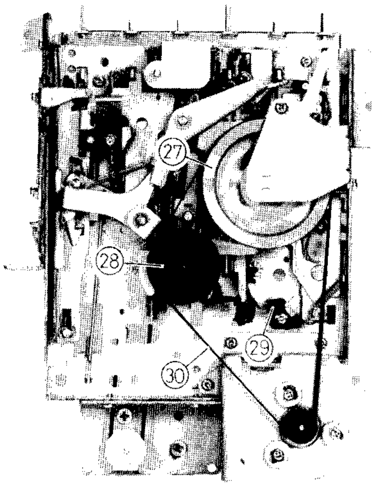


Fig. 6

1. LED indicators
2. Digital quartz clock
3. Dial scale
4. Needle
5. D. quartz clock circuit
6. Motor
7. Power transformer
8. Power supply P.W.B. ass'y
9. VR of volume
10. VR of balance
11. VR of tone
12. Variable capacitor
13. Bar antenna
14. Microphone jacks
15. DIN jack
16. Headphone jack
17. Ext. speaker jacks
18. Pinch roller ass'y
19. REC/PB head
20. Erase head
21. Take-up reel ass'y
22. Take-up roller
23. Supply reel ass'y
24. Counter belt
25. Motor ass'y
26. Tape counter
27. Flywheel ass'y
28. RF clutch ass'y
29. Leaf switch
30. Main belt

How to Remove the Respective Sections

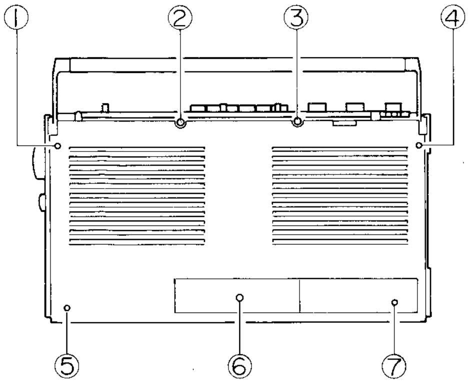


Fig. 7

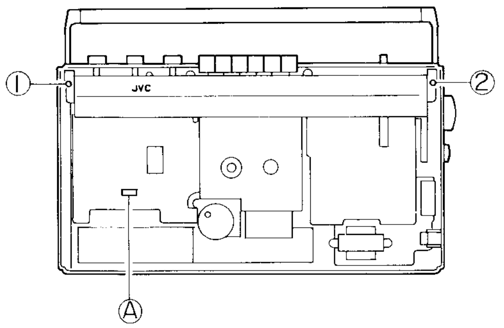


Fig. 8

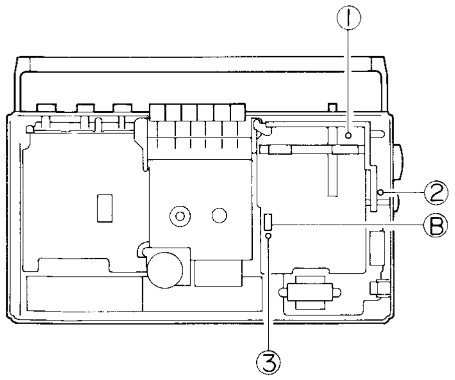


Fig. 9

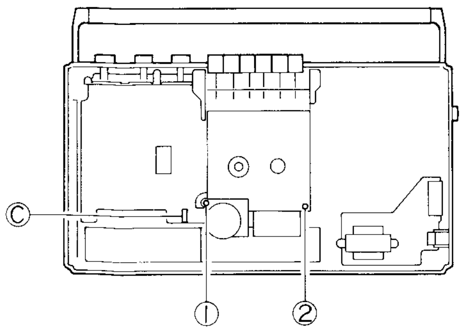


Fig. 10

(Remove in the order of the numbers.)

1. **Front cover** (Fig. 7)
   - Remove the battery cover.
   - Remove 7 screws (① ~ ⑦) fastening the front cover.
   - Open the cassette door.
   - Remove the front cover, and then disconnect 4-pin connector and 3-pin connector.
   - Disconnect the earth wire (black) of the tuner P.W.B. assembly.
2. **Dial scale** (Fig. 8)
   - Remove 2 screws (①, ②) fastening the dial scale.
   - Remove pulling out the needle to front side.

   Note: When assembling the dial scale, do not use more longer 12 mm screws.
3. **Tuner P.W.B. assembly** (Fig. 9)
   - Pull out the tuning knob.
   - Remove 3 screws (① ~ ③) fastening the tuner P.W.B. assembly.
   - Disconnect the 6-pin connector. (Ⓑ)
4. **Cassette mechanism section** (Fig. 10)
   - Remove 2 screws. (①, ②)
   - Disconnect 4-pin connector Ⓒ and remove the cassette section to right side.
5. **Amplifier circuit board assembly** (Fig. 11)
   - Remove the sound volume, balance and tone knobs.
   - Remove 7 screws (① ~ ⑦) fastening the Amp. circuit board assembly.
   - Disconnect 6-pin connector. (Ⓐ), (Fig 8)
   - Disconnect 3-pin connector. (Ⓓ)
   - Remove a screw fastening the bracket for pin jacks terminal.
6. **Clock and its buzzer P.W.B. assembly** (Refer to page 30.)
   1) Remove 2 screws fastening the clock P.W.B. to the dial scale assembly (rear side).
   2) Remove 2 screws fastening the bracket of the clock circuit to the cabinet (right side).
   3) Disconnect 3-pin connector.

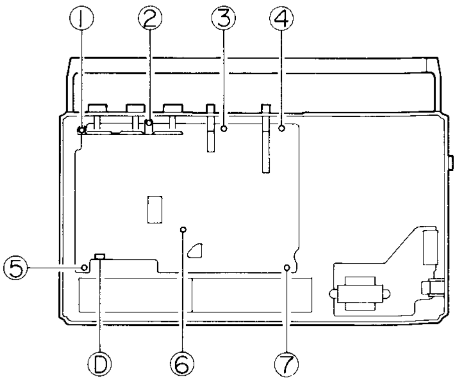


Fig. 11

How to Remove the Respective Cassette Mechanism Component

(Refer to mechanical component on page 16.)

1. **Pinch roller** ((70))
   - Remove the spring ((71)).
   - Remove the E-ring (⑦).
2. **REC/PB head** ((57))
   - Remove 2 screws ((60)), ((61)).
   - Remove the solenoid head circuit board.
3. **Erase head** ((62))
   - Remove 2 screws ((63)).
4. **Reel assembly** ((73)), ((74))
   - Insert the special tool for reel removing to reel 3 groove, and then pull out the reel.
5. **Take-up roller** (⑱)
   - Push the FF button.
   - Remove the washer (⑲).
     If you broke the washer, you can use E-ring (REE1200).
6. **RF clutch assembly** (㉗)
   - Remove the main belt (㉟).
   - Pull out the pulley (it is pressed).
7. **Main belt** (㉟)
   - To flywheel bracket (㊱) remove a screw (㉖).
8. **Flywheel assembly** (㉝)
   Do the same manner as for the main belt.
   (When assembling it, be careful not to forget the nylon washer for capstan.)
9. **Reef switch** (㊼)
   - Remove the screw (㊽).
10. **Motor assembly** (㊿)
    - Remove 3 screws ((100)).

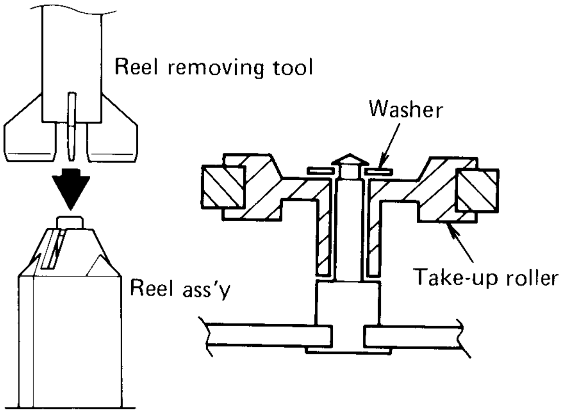

Reel removing tool
Washer
Reel ass'y
Take-up roller

Fig. 12

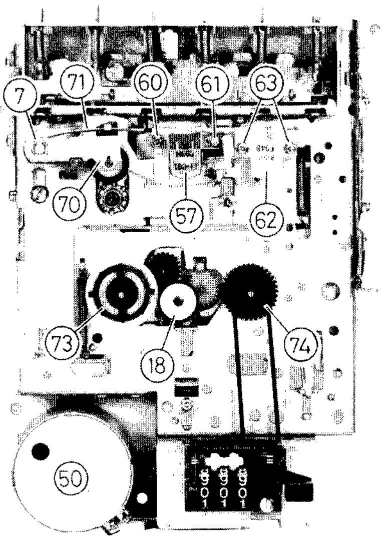

7
71
60
61
63
70
57
62
73
18
74
50

Fig. 13

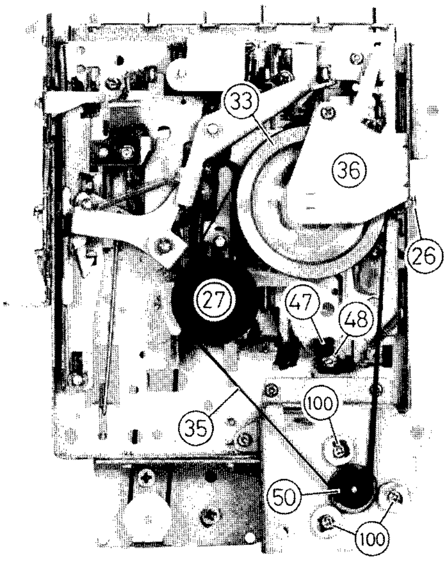

33
36
26
27
47
48
100
35
50
100

Fig. 14

Adjustment of Cassette Recorder

If the following adjustments are performed by ear or eye in a simple manner, be sure to perform then again later.

- **Head replacement and angle adjustment**

1. Head replacement
   1) To replace the record/playback head, remove two screws Ⓐ and Ⓑ shown in Fig. 15.
   2) To replace the erase head, remove two screws Ⓒ and Ⓓ shown in Fig. 15.
   3) When pressing the playback button, adjust these heads with the screws and the adjustment hole so that they are located as shown in Fig. 15.

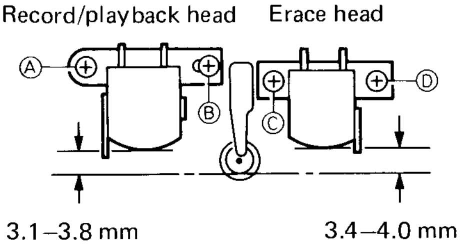


Fig. 15

2. Angle adjustment of Record/Playback head
   1) Connect an oscilloscope to the speaker terminal. (A Lissajous waveform will appear.)
   2) Play back the head angle adjusting tape (JVC test tape VTT-657).
   3) Adjust the head angle by turning screw Ⓑ shown in Fig. 15 so that the phase difference between the L and R outputs is 0° and the outputs are maximum.
   4) After adjustment, be sure to paint-lock screw Ⓑ.
   5) When adjusting the head angle using neither a volt-meter nor test tape, adjust it so that the output (esp. high band) from the speaker is maximum.

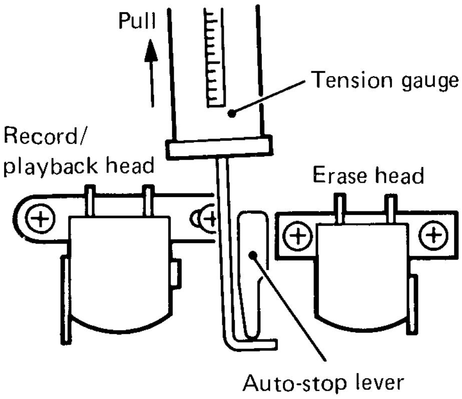


Fig. 16

- **Check of auto-stop detection pressure**
  1) Place the head mechanism with its motor side down, then set the recorder into the playback mode.
  2) Hang a tension gauge on the detection cap tip as shown in Fig. 16, then confirm that when this gauge is slowly pulled, the auto-stop lever operates in the range of 50–70 g.

- **Flywheel thrust adjustment**

  Insert a clearance gauge into the clearance between the flywheel and the flywheel bracket, then adjust the thrust by turning the thrust screw shown in Fig. 17 to obtain a clearance of 0.1–0.3 mm wide.

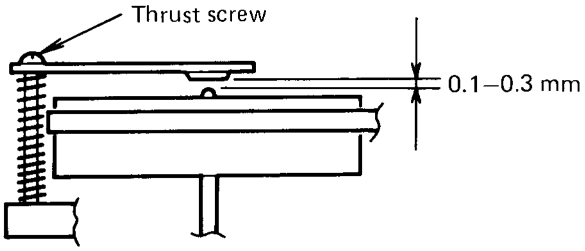


Fig. 17

- **Pause operation check**

  Operation and timing check
  1) Confirm that when pressing the PAUSE button in the playback mode, the tape stops running, while when re-pressing, the recorder returns to the playback mode without any abnormality.
  2) Confirm that when slowly pressing the PAUSE button, the pinch roller separates from the capstan to stop rotating earlier than the reel disk which in turn stops rotating. (Although they may stop almost at the same time, this means no abnormality.)

     Note: For positive checking, it is advisable to use a cassette tape with a small number of turns such as C-30, etc.

- **Adjustment of pinch roller contact force**
  1) Position the mechanism shown in Fig. 13 with the motor side down, enter the recorder into the playback mode, and hang a tension gauge on the protrusion part of the pinch roller arm shown in Fig. 13. Next, confirm that when slowly pulling the tension gauge, the pinch roller stops rotating in the range of 450–550 g.

2) If the pinch roller does not stop in this range, replace the contact spring or adjust the contact force by bending this spring.

Note: Overly strong contact force may cause noise in the pinch roller bearing part, wow & flutter, or similar adverse effects. Conversely, too little contact force may cause auto-stop function failure, wow & flutter, or similar adverse effects.

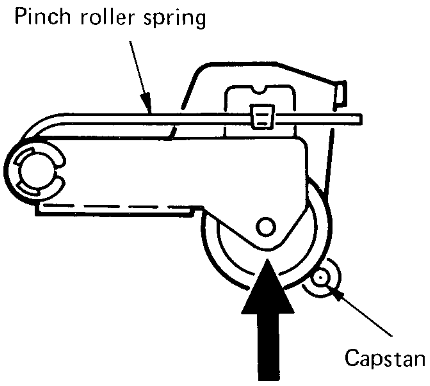


Fig. 18

- **Playback torque adjustment**

1) Set a torque gauge to the take-up reel, then enter the recorder into the playback mode, and confirm that the playback torque is 45–70 g/cm.

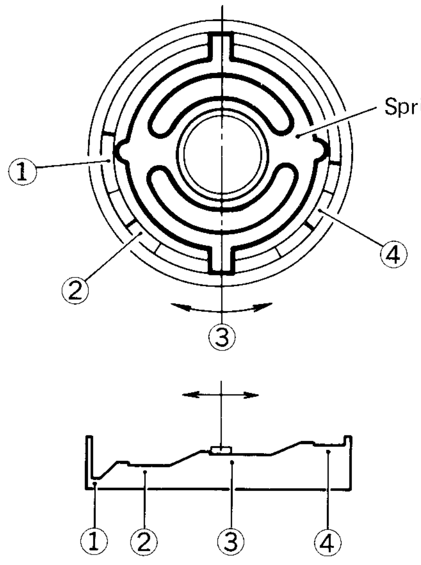


Fig. 19

2) When the playback torque is not in this range, check whether or not rubber and/or rotary members have dirt and/or oil on them. After that, if the torque is still low, lift up the spring plate shown in Fig. 19 to move it to position ③, while if the torque is high, move it to position ① in the same manner.

- **Fast forward/rewind torque adjustment**

1. Fast forward torque adjustment (Fig. 20)

   Set a torque gauge to the take-up reel, then enter the recorder into the playback mode, and confirm that the fast forward torque is 60–130 g/cm.

   1) When a normal torque is not obtained because of the instability of the sliding mechanism within the R.F. clutch ass'y, lift up the spring plate inside the R.F. clutch ass'y and adjust the torque by moving it in the direction of ①.

   2) When a normal torque is not obtained should the said sliding mechanism operate normally, adjust the torque by moving the said spring plate in the direction of ④ in the same manner as item 1).

2. Rewind torque adjustment (Fig. 20)

   Set a torque gauge to the rewind reel, then enter the recorder into the rewind mode, and confirm that the rewind torque is 60–130 g/cm.

   1) When a normal torque is not obtained because of the instability of the sliding mechanism within the R.F. clutch ass'y, lift up the spring plate inside the R.F. clutch ass'y and adjust the torque by moving it in the direction of ①.

   2) When a normal torque is not obtained should the said sliding mechanism operate normally, adjust the torque by moving the said spring plate in the direction of ④ in the same manner as item 1) of this paragraph.

   Note: When rubber members (belt, idler), the fringe of the flywheel, etc. have dirt on them, a normal torque may not appear, so clean them with alcohol, etc.

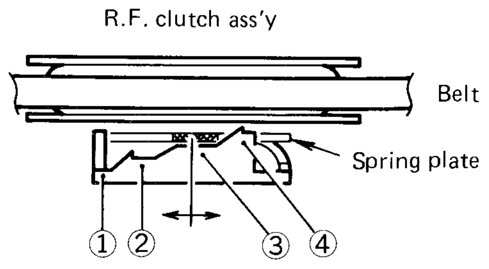


Fig. 20

How to Engage Dial Cord

1. Turn the dial drum fully counterclockwise (to the lowest frequency).
2. Use tetron cord (795 mm long and 0.5 mm in diameter) with applied micro wax.
3. Install the string in the sequence of the numbers.

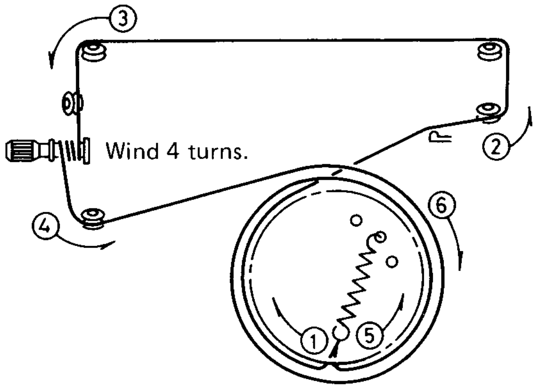

③
Wind 4 turns.
②
④
⑥
①
⑤

Fig. 21

Adjustment of Cassette Recorder Amplifier

- **Adjustments location**

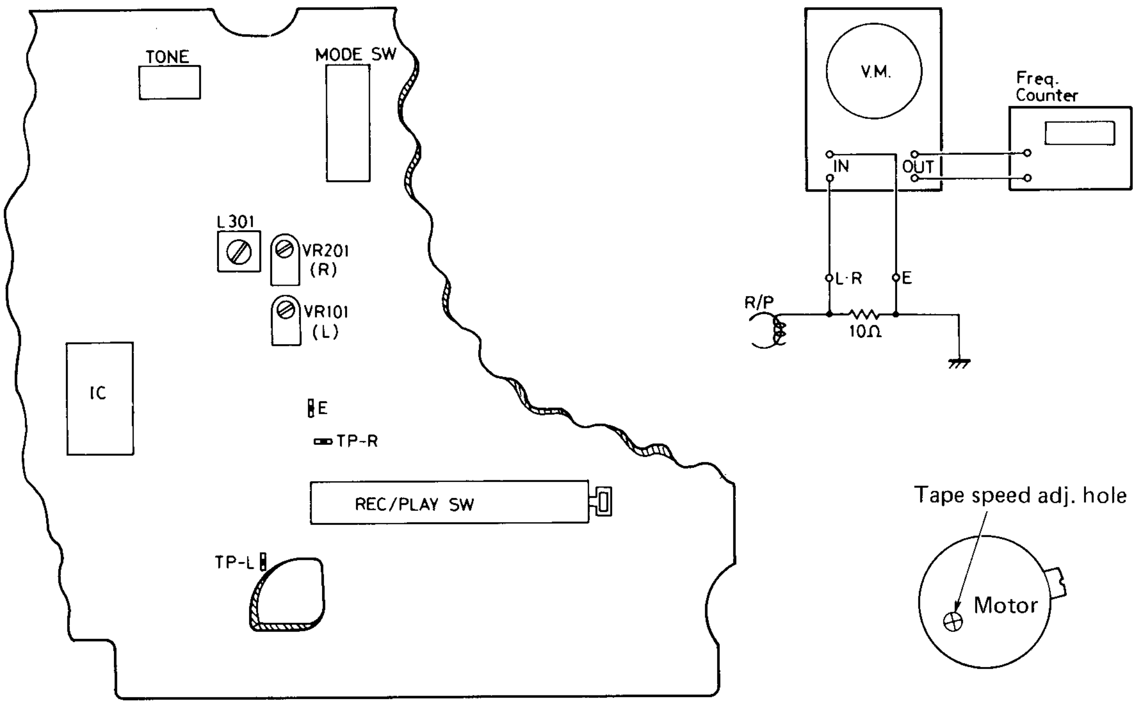

TONE
MODE SW
L301
VR201 (R)
VR101 (L)
IC
E
TP-R
REC/PLAY SW
TP-L
V.M.
Freq. Counter
IN
OUT
L-R
E
R/P
10Ω
Tape speed adj. hole
Motor

Fig. 22

Adjust in the following sequence.

1. Head azimuth
Connect an oscilloscope to the Ext. Spk. jacks. Using test tape VTT-657 (8 kHz, −15 dB), adjust so the phase difference between the L and R outputs is 0° and maximize the output level at the same time.

2. Bias frequency
Connect a frequency counter across TP-L and TP-R. Adjust L301 so that the counter reads 70.0 kHz.
(Beat cut switch – STEREO) – Refer to Fig. 22.

3. Bias current
Connect an electronic voltmeter across TP-L and TP-R. Adjust VR101 and VR201 so that the voltmeter reads 4.2 mV/10 ohms (420 μA).

4. Tape speed
Connect a frequency counter to the Ext. Spk. jacks. Playing back test tape VTT656 (3,000 Hz), adjust the semi-fixed resistor (VR701) in the motor so that the frequency counter reads 3,010 Hz.

Tuner Alignment

Output Measuring: Speaker terminal (Impedance = 3.2 Ω), output level 50 mW (0.4 V/3.2 Ω)

AM IF & RF Alignment

Input (SSG): Modulation 400 Hz, Modulated to 30%

Step	Frequency Band	Input Signal		Place to be aligned	Set the V. Capacitor to
		Frequency	Given to		
1	MW (IF)	455 kHz	Loop Antenna	T2, 4, 5	Minimum
2		Repeat the Step 1, and adjust for no further improvement.			
3	LW	145 kHz	Loop Antenna	L8	Maximum
4		360 kHz		TC8	Minimum
5		Repeat the Steps 3 & 4.			
6		160 kHz	Loop Antenna	L5	160 kHz Signal
7		350 kHz		TC5	350 kHz Signal
8		Repeat the Steps 6 & 7, and adjust for no further improvement.			
9	MW	520 kHz	Loop Antenna	L7	Maximum
10		1650 kHz		TC7	Minimum
11		Repeat the Steps 9 & 10.			
12		600 kHz	Loop Antenna	L4	600 kHz Signal
13		1400 kHz		TC4	1400 kHz Signal
14		Repeat the Steps 12 & 13, and adjust for no further improvement.			
15	SW	5.8 MHz	Rod Antenna through Dummy Antenna	L6	Maximum
16		18.6 MHz		TC6	Minimum
17		Repeat the Steps 15 & 16.			
18		6.0 MHz	Rod Antenna through Dummy Antenna	L3	6.0 MHz Signal
19		18.0 MHz		TC3	18.0 MHz Signal
20		Repeat the Steps 18 & 19, and adjust for no further improvement.			

FM IF & Discriminator Alignment

Input (Sweep Generator) : TP5 (hot)
Output (Oscilloscope) : IF TP9 (hot) & TP10
Discriminator TP9 (hot) & TP10

Step	Mode	Place to be aligned	Waveform
1	IF	T1	Fig. 23
2	Discriminator	T3	Fig. 24

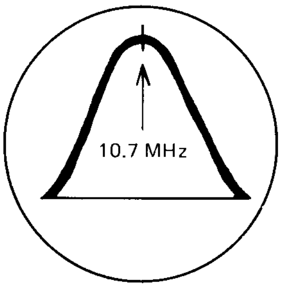


Fig. 23

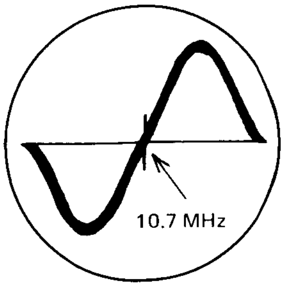


Fig. 24

FM RF Alignment

Input (SSG) : Use 75 Ω terminal, modulation 400 Hz modulated to 22.5 kHz deviation.
Connect Hot side to TP1 and Cold side to TP3.

Step	Frequency Band	Input Signal		Place to be aligned	Set the V. Capacitor to
		Frequency	Given to		
1	FM	87.5 MHz	TP1 & TP3	L2	Maximum
2		109 MHz		TC2	Minimum
3		Repeat the Steps 1 & 2.			
4		90 MHz	TP1 & TP3	L1	90 MHz Signal
5		106 MHz		TC1	106 MHz Signal
6		Repeat the Steps 4 & 5, and adjust for no further improvement.			

FM MPX Alignment

A. 19 kHz Alignment (Regular Method)

1. Connect a frequency counter to the test point TP8.
2. Supply the monaural signal (98 MHz, 60 dB) across the test points TP1 and TP3.
3. Adjust the variable resistor VR1 so that the frequency becomes 19 kHz ± 150 Hz.

B. 19 kHz Alignment (Simplified Method)

1. Tune to an FM stereo broadcast.
2. Set the variable resistor VR1 to the center position of the range in where the stereo indicator keeps lighting.

Parts Arrangement for Alignment

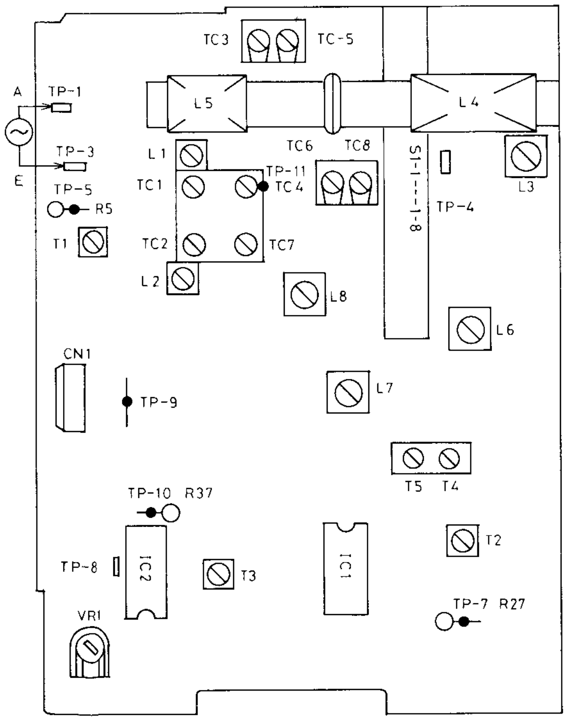
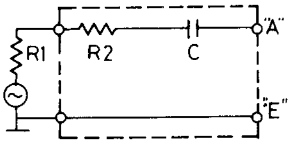

TC3
TC-5
A
TP-1
TP-3
E
TP-5
R5
T1
L5
L4
L1
TC6
TC8
TP-11
TC1
TC4
S1-1--1-8
L3
TP-4
TC2
TC7
L2
L8
L6
CN1
TP-9
L7
T5
T4
TP-10
R37
T2
TP-8
IC2
T3
IC1
TP-7
R27
VR1

Fig. 25

Dummy Antenna



R1 + R2 = 80 Ω
C = 10 pF
R1: Output impedance of S.S.G.

Block Diagram

Tuner Circuit

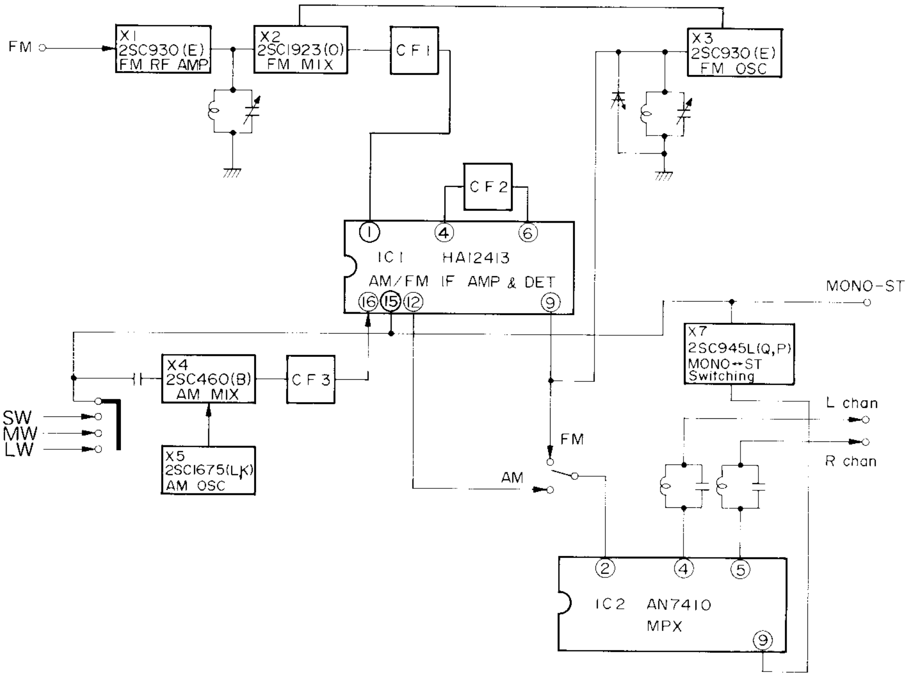

FM
X1
2SC930(E)
FM RF AMP
X2
2SC1923(O)
FM MIX
CF1
X3
2SC930(E)
FM OSC
CF2
IC1 HA12413
AM/FM IF AMP & DET
① ④ ⑥ ⑯ ⑮ ⑫ ⑨
MONO-ST
X7
2SC945L(Q,P)
MONO↔ST
Switching
X4
2SC460(B)
AM MIX
CF3
SW
MW
LW
X5
2SC1675(L,K)
AM OSC
L chan
R chan
FM
AM
② ④ ⑤
IC2 AN7410
MPX
⑨

Fig. 26

Amplifier Circuit

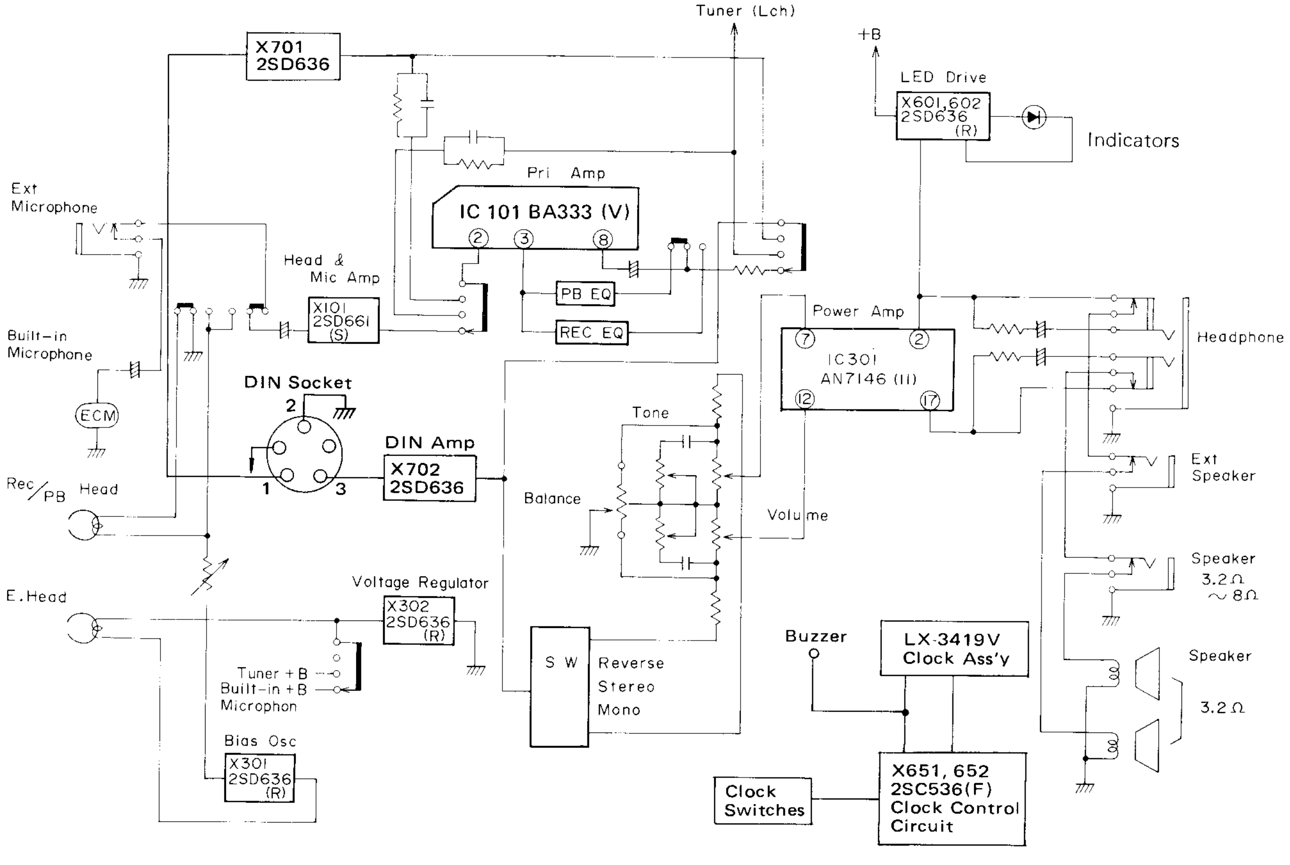
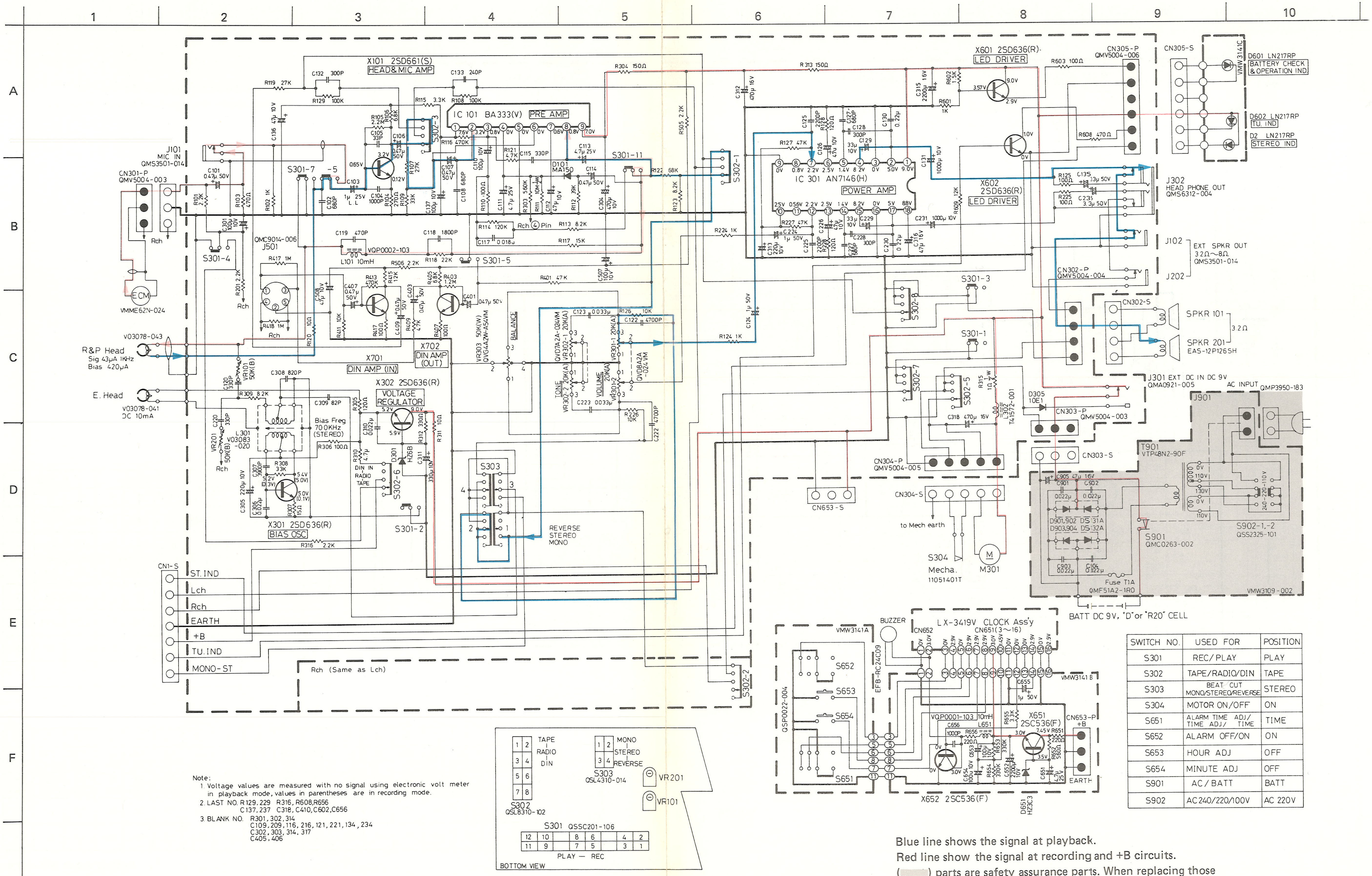

Tuner (Lch)
+B
X701
2SD636
LED Drive
X601,602
2SD636
(R)
Indicators
Pri Amp
IC 101 BA333 (V)
② ③ ⑧
Ext
Microphone
Head &
Mic Amp
X101
2SD661
(S)
PB EQ
REC EQ
Power Amp
IC301
AN7146 (II)
⑦ ② ⑫ ⑰
Headphone
Built-in
Microphone
ECM
DIN Socket
2
1
3
DIN Amp
X702
2SD636
Tone
Balance
Volume
Ext
Speaker
Rec/PB Head
Speaker
3.2Ω
~8Ω
E.Head
Voltage Regulator
X302
2SD636
(R)
Tuner +B
Built-in +B
Microphon
SW
Reverse
Stereo
Mono
Buzzer
LX-3419V
Clock Ass'y
Speaker
3.2Ω
Bias Osc
X301
2SD636
(R)
Clock
Switches
X651, 652
2SC536(F)
Clock Control
Circuit

Fig. 27

Schematic Diagram of RC-555KL (Amplifier Circuit)


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
X101 2SD661(S)
HEAD&MIC AMP
IC 101 BA333(V)
PRE AMP
IC 301 AN7146(H)
POWER AMP
X601 2SD636(R)
LED DRIVER
X602 2SD636(R)
LED DRIVER
X701
DIN AMP (IN)
X702
DIN AMP (OUT)
X302 2SD636(R)
VOLTAGE REGULATOR
X301 2SD636(R)
BIAS OSC
J101 MIC IN QMS3501-014
CN301-P QMV5004-003
ECM VMME62N-024
J501 QMC9014-006
R&P Head
Sig 43μA 1KHz
Bias 420μA
E. Head
V03078-043
V03078-041
DC 10mA
L301 V03083-020
Bias Freq 70.0KHz (STEREO)
VR303 50K(W) QVG4A2W-A54VM
BALANCE
TONE
VOLUME
REVERSE
STEREO
MONO
S301-1
S301-2
S301-3
S301-4
S301-5
S301-7
S301-11
S302-1
S302-2
S302-3
S302-5
S302-6
S302-7
S302-8
S303
J302 HEAD PHONE OUT QMS6312-004
J102 EXT SPKR OUT 3.2Ω~8Ω QMS3501-014
J202
SPKR 101
SPKR 201
3.2Ω
EAS-12P126SH
CN302-P QMV5004-004
CN302-S
CN305-P QMV5004-006
CN305-S
D601 LN217RP BATTERY CHECK & OPERATION IND
D602 LN217RP TU. IND
D2 LN217RP STEREO IND
VMW3141C
J301 EXT DC IN DC 9V QMA0921-005
AC INPUT QMP3950-183
J901
T901 VTP4N8N2-90F
D901,902 DS 131A
D903,904 DS 132A
S901 QMC0263-002
S902-1,-2 QSS2325-101
Fuse T1A QMF51A2-1R0
VMW3109-002
BATT DC 9V, "D" or "R20" CELL
CN303-P QMV5004-003
CN303-S
CN304-P QMV5004-005
CN304-S
CN653-S
to Mech earth
S304 Mecha. 11051401T
M M301
CN1-S
ST. IND
Lch
Rch
EARTH
+B
TU. IND
MONO-ST
Rch (Same as Lch)
LX-3419V CLOCK Ass'y
CN651(3~16)
CN652
BUZZER
VMW3141A
VMW3141B
EFB-RC24C09
QSP0022-004
S651
S652
S653
S654
X651 2SC536(F)
X652 2SC536(F)
CN653-P +B
EARTH
D651 HZ3C3
VQP0001-103 10mH
S302 QSL8310-102
TAPE RADIO DIN
S303 QSL4310-014
MONO STEREO REVERSE
VR201
VR101
S301 QSSC201-106
PLAY — REC
BOTTOM VIEW

Note:

1. Voltage values are measured with no signal using electronic volt meter in playback mode, values in parentheses are in recording mode.
2. LAST NO. R129. 229 R316, R608, R656
   C137, 237 C318, C410, C602, C656
3. BLANK NO. R301, 302, 314
   C109, 209, 116, 216, 121, 221, 134, 234
   C302, 303, 314, 317
   C405, 406

SWITCH NO.	USED FOR	POSITION
S301	REC/PLAY	PLAY
S302	TAPE/RADIO/DIN	TAPE
S303	BEAT CUT MONO/STEREO/REVERSE	STEREO
S304	MOTOR ON/OFF	ON
S651	ALARM TIME ADJ/ TIME ADJ/ TIME	TIME
S652	ALARM OFF/ON	ON
S653	HOUR ADJ	OFF
S654	MINUTE ADJ	OFF
S901	AC/BATT	BATT
S902	AC 240/220/100V	AC 220V

Fig. 29

Blue line shows the signal at playback.
Red line show the signal at recording and +B circuits.
(▨) parts are safety assurance parts. When replacing those parts, make sure to use the specified one.

Schematic Diagram of RC-555KL (Tuner Circuit)

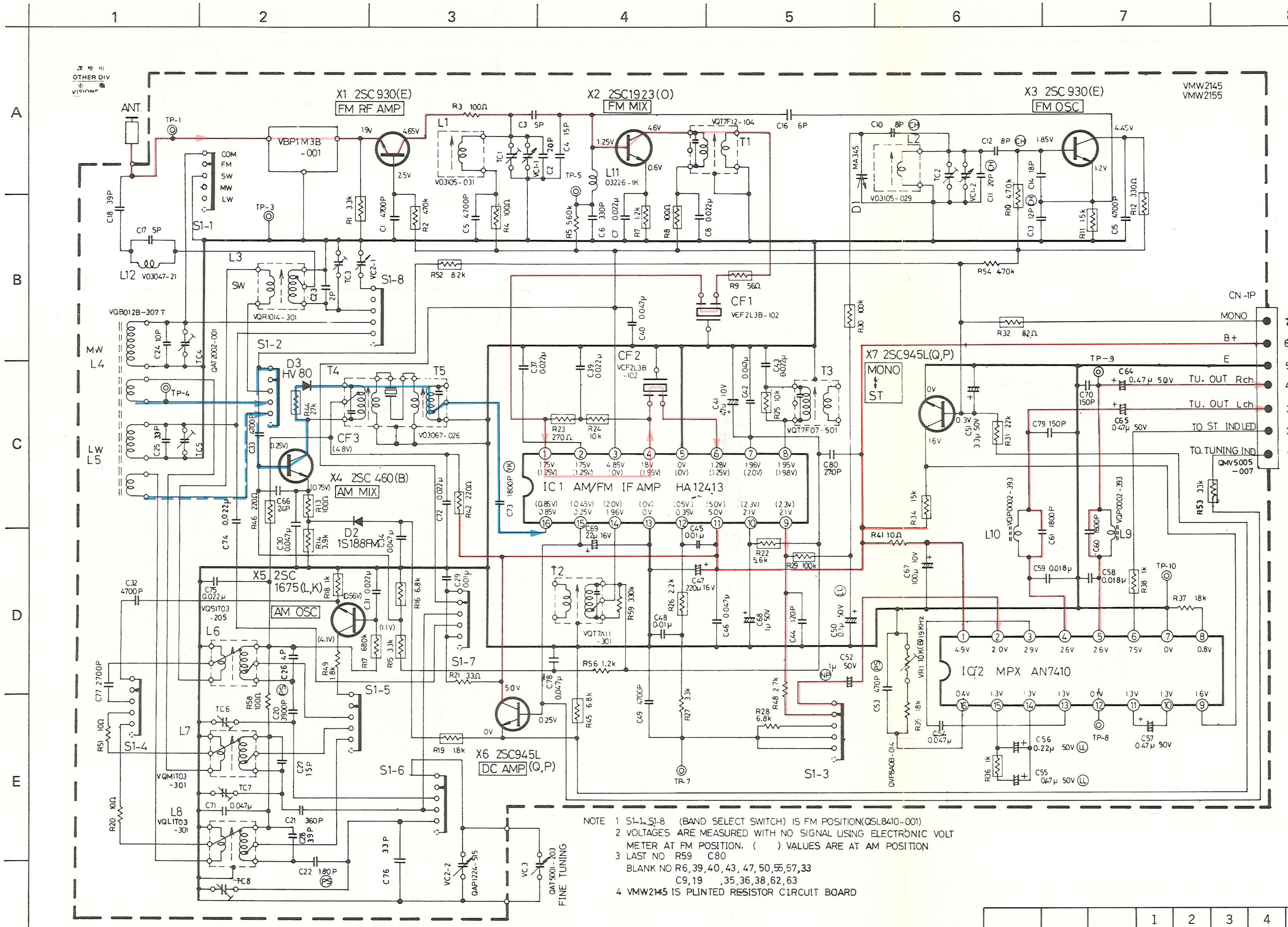

1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
ANT.
X1 2SC930(E)
FM RF AMP
X2 2SC1923(O)
FM MIX
X3 2SC930(E)
FM OSC
VMW2145
VMW2155
VBP1M3B -001
COM
FM
SW
MW
LW
S1-1
S1-2
S1-3
S1-4
S1-5
S1-6
S1-7
S1-8
L1
L2
L3
L6
L7
L8
L10
L11
L12
MW L4
LW L5
T1
T2
T3
T4
T5
CF1
CF2
CF3
D1 MA345
D2 1S188FM
D3 HV80
X4 2SC460(B)
AM MIX
X5 2SC1675(L,K)
AM OSC
X6 2SC945L
DC AMP (Q,P)
X7 2SC945L(Q,P)
MONO
ST
IC1 AM/FM IF AMP HA12413
IC2 MPX AN7410
CN-1P
MONO
B+
E
TU. OUT Rch
TU. OUT Lch
TO ST IND LED
TO TUNING IND
QAT5001-203
FINE TUNING
OTHER DIV

Fig. 28

NOTE 1 S1-1~S1-8 (BAND SELECT SWITCH) IS FM POSITION(QSL8410-001)
2 VOLTAGES ARE MEASURED WITH NO SIGNAL USING ELECTRONIC VOLT METER AT FM POSITION. ( ) VALUES ARE AT AM POSITION
3 LAST NO R59 C80
BLANK NO R6, 39, 40, 43, 47, 50, 55, 57, 33
C9, 19 , 35, 36, 38, 62, 63
4 VMW2145 IS PLINTED RESISTOR CIRCUIT BOARD

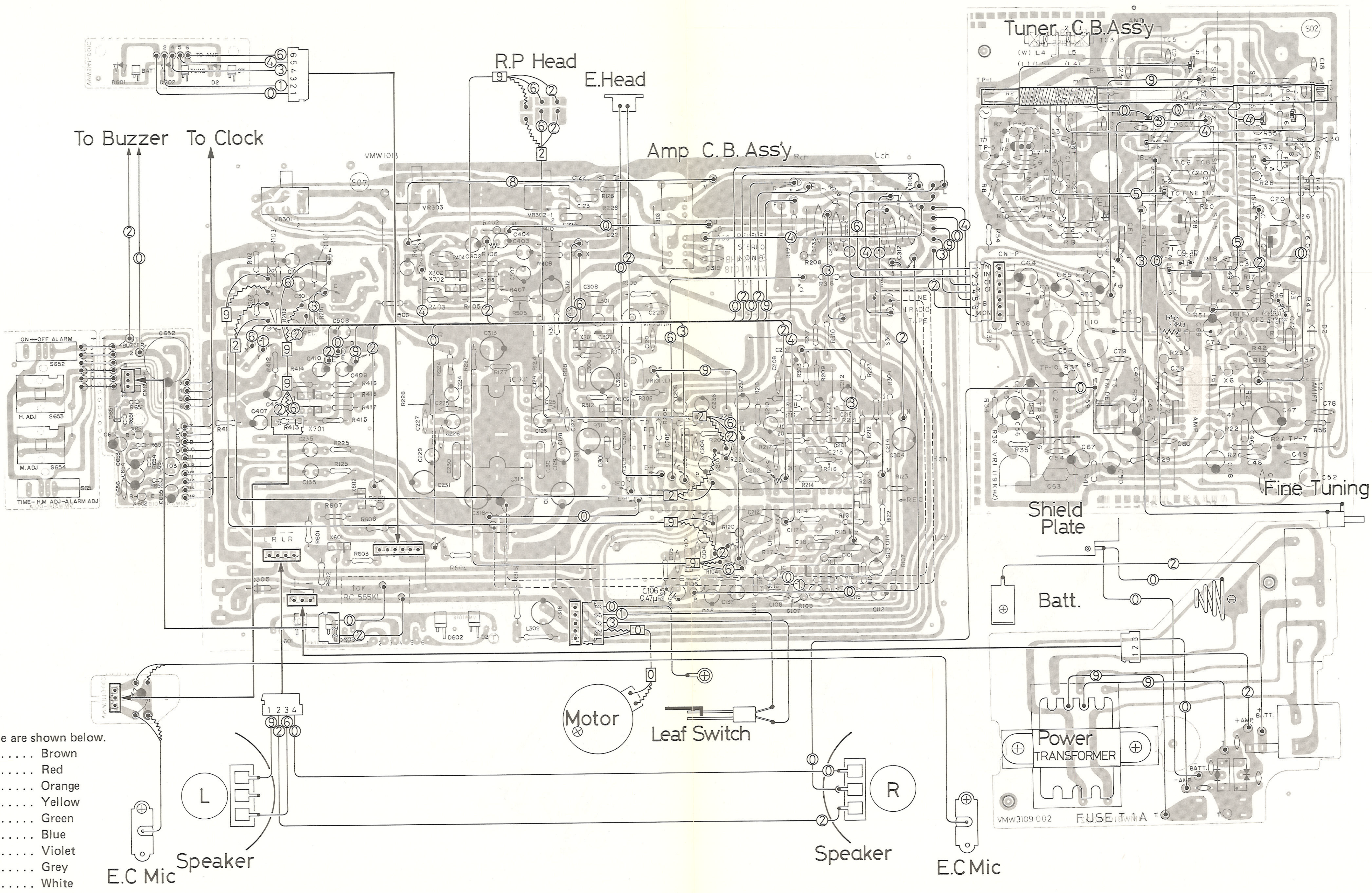
Blue line shows the signal at MW and LW.
Red line shows the signal at FM and +B circuits.

Ref. No.	Transistor Name	Function	E. Voltmeter			C. Tester		
			E	C	B	E	C	B
X1	2SC930(E)	FM RF AMP	1.9	4.65	2.5	1.9	4.7	1.4
X2	2SC1923(O)	FM MIX	0.6	4.6	1.25	0.6	4.7	1
X3	2SC930(E)	FM OSC	1.2	4.45	1.85	1.2	4.45	1.2
X4	2SC460(B)	AM MIX	0.75	4.8	1.25	0.75	4.8	1.2
X5	2SC460(B)	AM OSC	(0.56)	(4.1)	(1.1)	(0.7)	(3.7)	(0.9)
X6	2SC458(C)	DC AMP	0.	5.0	0.25	0	4.9	0.25
X7	2SC458(C)	MONO↔ST	0.	1.6	0.3	0	1.6	0

			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC1 HA12413	AM/FM IF AMP	E. Voltmeter	1.75 (1.25)	1.75 (1.25)	4.85 (0)	1.8 1.95	0 0	1.28 (1.25)	1.96 2.0	1.95 (1.98)	2.1 (2.3)	2.1 (2.3)	5.0 (5.0)	0.35 (0.5)	0 (0)	1.96 (2.0)	0.25 (0.45)	0.85 (0.85)
		C. Tester	1.75 (1.25)	1.75 (1.25)	4.8 (0)	1.8 (2.0)	0 (0)	1.28 (1.25)	2.0 (2.0)	1.95 (2.0)	2.0 (2.3)	2.0 (2.3)	4.9 (4.9)	0.3 (0.5)	0 (0)	2.0 (2.0)	0.25 (0.4)	0.8 (0.8)
IC2 AN7410	MPX	E. Voltmeter	4.9	2.0	2.9	2.6	2.6	7.5	0	2.0	0.4	1.3	1.3	1.3	0.1	1.3	1.3	1.6
		C. Tester	4.8	1.9	2.9	2.4	2.4	7.2	0	0.6	0.4	1.2	1.2	1.3	2.0	1.2	1.2	1.6

*( ) values are at AM mode.

Wiring Connection


Tuner C.B.Ass'y
R.P Head
E.Head
Amp C.B.Ass'y
To Buzzer
To Clock
ON↔OFF ALARM
H. ADJ
M. ADJ
TIME—H.M ADJ—ALARM ADJ
for RC 555KL
Fine Tuning
Shield Plate
Batt.
Power TRANSFORMER
FUSE T 1A
VMW3109-002
Motor
Leaf Switch
L
R
Speaker
Speaker
E.C Mic
E.C Mic

Color code are shown below.

1 . . . . . Brown
2 . . . . . Red
3 . . . . . Orange
4 . . . . . Yellow
5 . . . . . Green
6 . . . . . Blue
7 . . . . . Violet
8 . . . . . Grey
9 . . . . . White
0 . . . . . Black

Fig. 30

Mechanical Component Parts

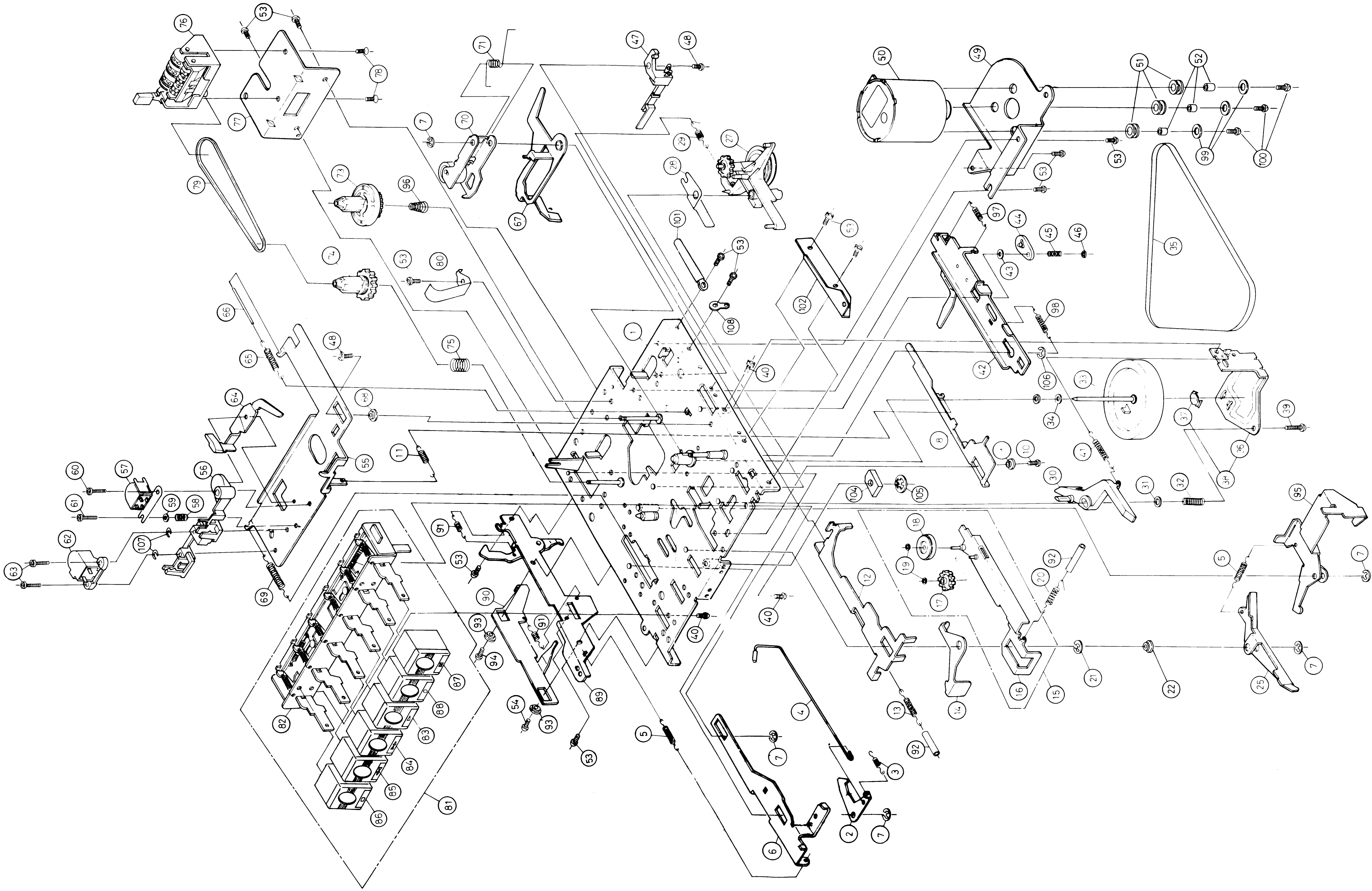
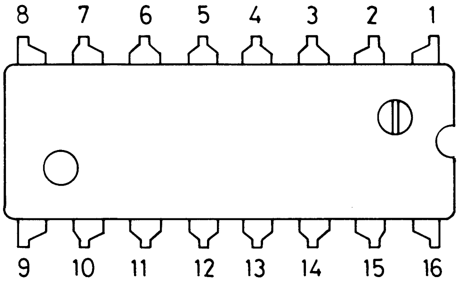

76
53
78
77
79
71
7
70
67
73
96
47
48
29
27
28
50
49
51
52
53
99
100
97
44
45
46
43
35
101
102
108
1
40
42
98
106
33
34
37
39
36
38
74
80
66
65
75
64
11
55
8
9
10
41
30
31
32
60
57
56
61
59
58
62
107
63
69
104
105
95
18
19
17
92
20
12
5
91
90
93
94
87
88
83
84
85
86
82
81
89
54
4
13
3
2
6
14
16
15
21
22
25

Fig. 31

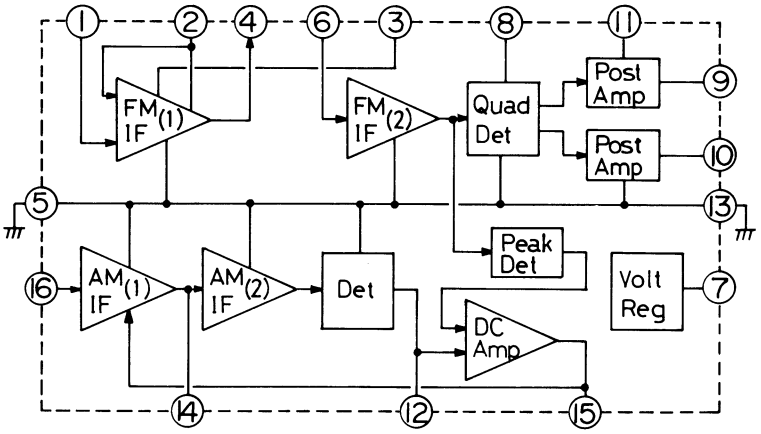
ICs

– HA12413 –

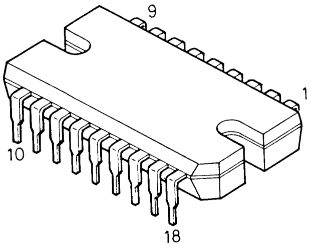
(Top View)

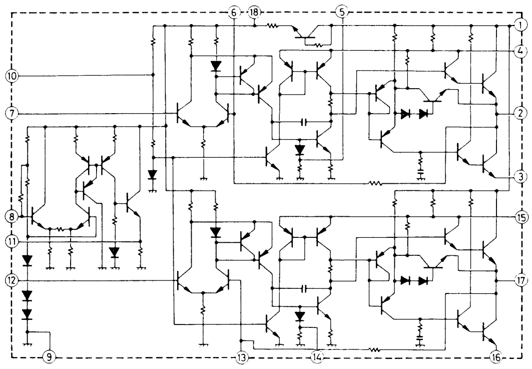

8
7
6
5
4
3
2
1
9
10
11
12
13
14
15
16

(Block Diagram)

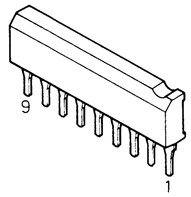

FM(1) IF
FM(2) IF
Quad Det
Post Amp
Post Amp
AM(1) IF
AM(2) IF
Det
Peak Det
DC Amp
Volt Reg

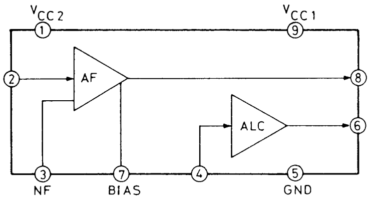
– AN7146 –

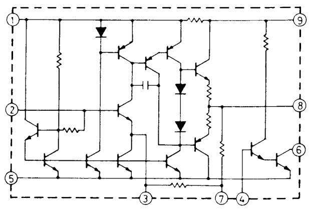




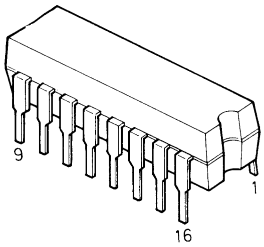
– BA333 –




V_{CC2}
V_{CC1}
AF
ALC
NF
BIAS
GND



– AN7410 –



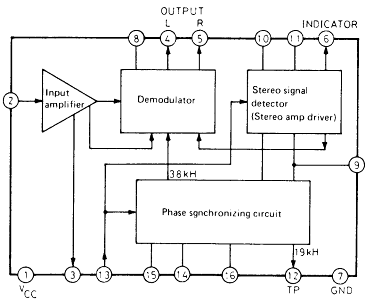

OUTPUT
L
R
INDICATOR
Input amplifier
Demodulator
Stereo signal detector (Stereo amp driver)
38kH
Phase sgnchronizing circuit
19kH
V_{CC}
TP
GND

Fig. 32

Mechanical Component Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1	15840181ZT	Mecha. Chassis Ass'y		1
2	15790205T	Rec. Safety Lever		1
3	2980802T	Spring		1
4	13970202ZT	Rec. Safety Spoke Ass'y		1
5	150102T	Spring	Rec. Slide Lever x 1, Rec. Kick Lever x 1	2
6	15790201T	Rec. Slide Lever		1
7	REE2500	E Ring	for Rec. Slide Lever x 2, Rec. Kick Lever x 1, Rec. Lever x 1, Pinch Roller Spring x 1	5
8	13971002T	Play Slide Lever		1
9	090302T	Play Slide Lever Collar		1
10	10PZ26080T	Screw		1
11	13490301T	RC. Spring		1
12	12001001T	Main Plate		1
13	7380702T	Main Plate Spring		1
14	12001002T	Rewind Arm		1
15	12000891ZT	F.F. Idler Arm Ass'y		1
16	12000881ZT	F.F. Idler Arm Sub Ass'y		1
17	12000802BT	Idler Gear		1
18	12000804T	Take-up Roller		1
19	12001503T	Washer		2
20	6300403T	F.F. Idler Arm Spring		1
21	REE4000	E Ring		1
22	13332104T	Collar		1
23	13971005T	Guide Plate		1
24	16100604T	Polyslider Washer	ϕ1.6 x ϕ3.8 x t0.3	1
25	–	–		–
26	–	–	Blank No.	–
27	13970791ZT	RF. Clutch Ass'y	J24	1
28	12021001T	Rew. Spring Plate		1
29	12000709T	RF. Clutch Arm Spring		1
30	12001102T	Auto Stop Lever	J24	1
31	WNS3000Z	Washer	ϕ3.3 x ϕ8 x t 0.5	1
32	14310901T	Thrust Spring		1
33	12000903T	Flywheel Ass'y		1
34	3280712T	Polyslider Washer	ϕ2.1 x ϕ4 x t 0.25	2
35	12000904T	Main Belt		1
36	12000901T	Flywheel Bracket		1
37	12000906T	Spacer		1
38	12000991ZT	Flywheel Bracket Ass'y		1
39	SPSP2618Z	Screw		1
40	10PZ26050T	Screw	for Flywheel Bracket x 1, Push Button x 2	3
41	12001103T	Auto Stop Lever Spring		1
42	14071781ZT	Pause Slide Lever Ass'y		1
43	15101201T	Collar		1
44	12221702T	Pause Lever		1
45	13231701T	Pause Lever Spring		1
46	12601501T	Special Washer	ϕ1.7 x ϕ5 x ϕ0.4	1
47	MSW-0087NKT	Leaf Switch		1
48	23BZ26050T	Tap. Screw		1
49	15791201T	Motor Bracket		1
50	15791282ZT	Motor Ass'y		1
51	F4641-001	Rubber Cushion		3
52	14311202T	Collar		3
53	20PZ26040T	Tap. Screw		12
54	20PZ26060T	"		1
55	12600301T	Head Panel		1

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
56	12000302T	Head Block	J24	1
57	V03078-043	R/P Head		1
58	15600305T	R/P Head Spring		1
59	WSS2000N	Washer	ϕ2.3 x ϕ4.3 x t 0.4	1
60	72PZ20110T	Cap. Screw		1
61	SPSX2011R	PM. Screw		1
62	V03078-041	E. Head		1
63	72PU20120T	Cap. Screw		2
64	12001193ZT	Detect Plate Ass'y		1
65	14000303T	Head Panel Spring (L)		1
66	–	Tube	ϕ1.4 x ϕ0.8 x L24	1
67	12221705T	Pause Arm Lever		1
68	4080411T	Head Panel Collar		1
69	12000303T	Head Panel Spring (R)		1
70	12600491ZT	Pinch Roller Ass'y		1
71	12600402T	Pinch Roller Spring		1
72	–	–	Blank No.	–
73	12000593ZT	Take-up Reel Ass'y	J24	1
74	13970692ZT	Supply Reel Ass'y	J24	1
75	12910601T	Spring	for Back Tension	1
76	VKC5103-001S	Tape Counter	H55	1
77	15841601T	Counter Bracket		1
78	SSSP3005ZS	Screw	for Tape Counter	2
79	1891003T	Counter Belt		1
80	6010101T	Pack Spring		1
81	15791495ZT	Push Button Switch Composite Ass'y		1
82	15791494ZT	Push Button Switch Ass'y		1
83	VXP3050-007	Push Button	for Play	1
84	VXP3050-003	"	for FF	1
85	VXP3050-004	"	for Rew.	1
86	VXP3050-005	"	for Stop	1
87	VXP3050-001	"	for Pause	1
88	VXP3050-006	"	for Rec.	1
89	15841381ZT	Eject Bracket Ass'y		1
90	15161302T	Eject Lever		1
91	581205T	Spring		2
92	–	Tube	Vinyl ϕ3.5 x L18	1
93	9071904T	Collar		2
94	20PZ26070T	Tap. Screw	Head Panel Collar x 1, Eject Lever x 1	2
95	15840201T	Rec. Kick Lever		1
96	14300501T	Spring	for Take-up Disk	1
97	180311T	"	for Pause Arm	1
98	180502BT	"	for Pause Slide Arm	1
99	031512T	Washer	ϕ2.6 x ϕ8 x t 0.8	3
100	SPSP2609Z	Screw	for Motor	3
101	4660901T	Wire Clamp		1
102	15841602T	Side Bracket		1
103	150102T	Spring	Rec. Kick Lever	1
104	15790103T	Rubber Sheet		1
105	RDS3000F	CS Ring		1
106	REE2000	E Ring		1
107	13270412A	(U) Washer	for Head Adjust t 0.1	2
"	13270412B	"	for Head Adjust t 0.2	2
"	13270412C	"	for Head Adjust t 0.3	2
108	021501T	Terminal Lug		1

Cabinet Assembly Parts

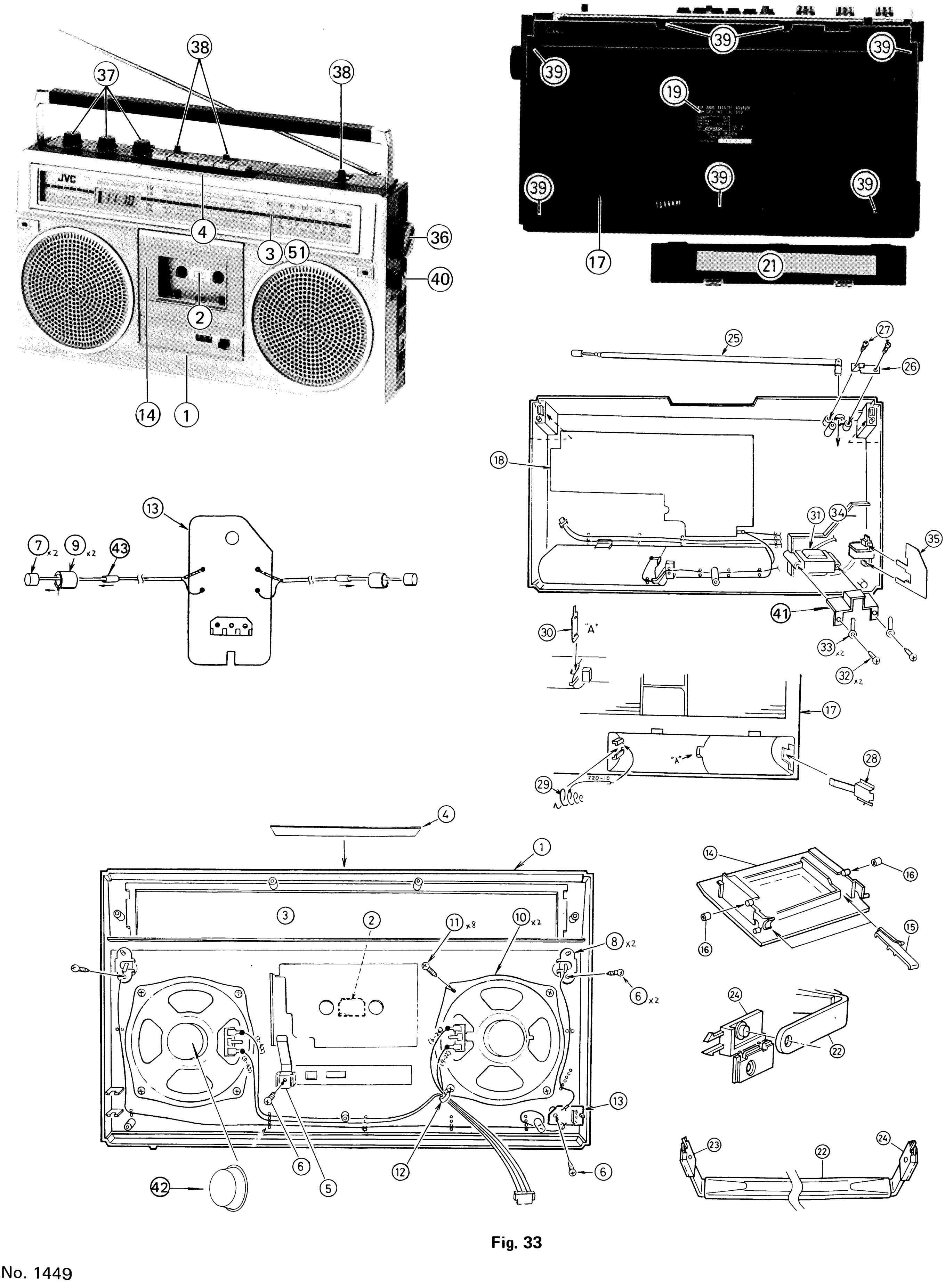

37
38
38
4
3
51
2
14
1
36
40
39
19
17
21
25
27
26
18
31
34
35
41
30
"A"
33 x2
32 x2
17
28
29
220-10
13
7 x2
9 x2
43
4
1
3
2
11 x8
10 x2
8 x2
6 x2
13
6
5
12
6
42
14
16
16
15
24
22
23
22
24

Fig. 33

Cabinet Assembly Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
(1–4)	ZCRC555KL-CBF	Front Cabinet		1 set
1	VJC1097-001	Front Cabinet		1
2	VJD4005-002	Reflection Plate		1
3	VJK3149-001	Dial Lens		1
4	VJD4358-002	Mecha. Plate		1
5	VKY4165-001	Door Spring		1
6	SBSF3010Z	Tap. Screw	Door Spring x 1, Mic. Bushing x 2, P.W.B. x 1	4
7	VMME62N-024	E. C. Mic.		2
8	VYH4298-001	Holder		2
9	VYH4102-001	Mic. Bushing		2
10	EAS12P126SH	Speaker	SPKR101, SPKR201	2
11	SBSF3008Z	Tap. Screw		8
12	VKZ4001-007	Wire Holder		1
13	–	P. W. Board	Mic. Wire Terminal	1
14	VJT4027-00A	Cassette Door Ass'y		1
15	V44910-002	Cassette Spring		2
16	VYH4275-001	Rubber Ring		2
(17–21)	ZCRC555KL-CBR	Rear Cabinet		1
17	VJC1098-008	Rear Cabinet		1
18	VYH4474-00A	Shield Ass'y		1
19	VYN5062-019C	Name Plate	JVC	1
21	ZCRC555-BCA	Battery Cover Ass'y		1
22	VJH4011-00F	Handle Ass'y		1
23	VYH4467-001	Handle Supporter	(L)	1
24	VYH4468-001	〃	(R)	1
25	QZR4333-001	Rod Antenna		1
26	VYH4469-001	Rod Antenna Holder		1
27	SBSF3008Z	Tap. Screw		2
28	VYH4010-003	Battery Contact		1
29	53738-1	Battery Spring		1
30	VYH4104-002	Contact		1
31	VTP48N2-90F	Power Transformer	T901	1
32	SBSF3014C	Tap. Screw		2
33	VKZ4001-010	Wire Holder		2
34	VMW3109-002	P. W. Board	Power Supply	1
35	VYH4470-001	Plate		1
36	VXL4106-002	Tuning Knob		1
37	VXL4107-002	Knob		3
38	VXQ4026-003	Lever Cap		3
39	SBSF3018R	Tap. Screw	for F. Cabinet + R. Cabinet	7
40	VXKM520-20012	Fine Tuning Knob		1
42	VYH4599-001	Shield		1
43	VYTH402-001	Spacer		2
44	VYSA1R8-049	〃		1
45	VYSR105-004	〃		1
46	VYSA1R4-056	〃		4
48	VYSH106-020	〃		1
49	VYSA1R6-009	〃		4
50	VJD4501-001	Plate		1
51	VJK2133-001	Dial Scale		1
52		Connector	CN651	1

Chassis Base Assembly Parts

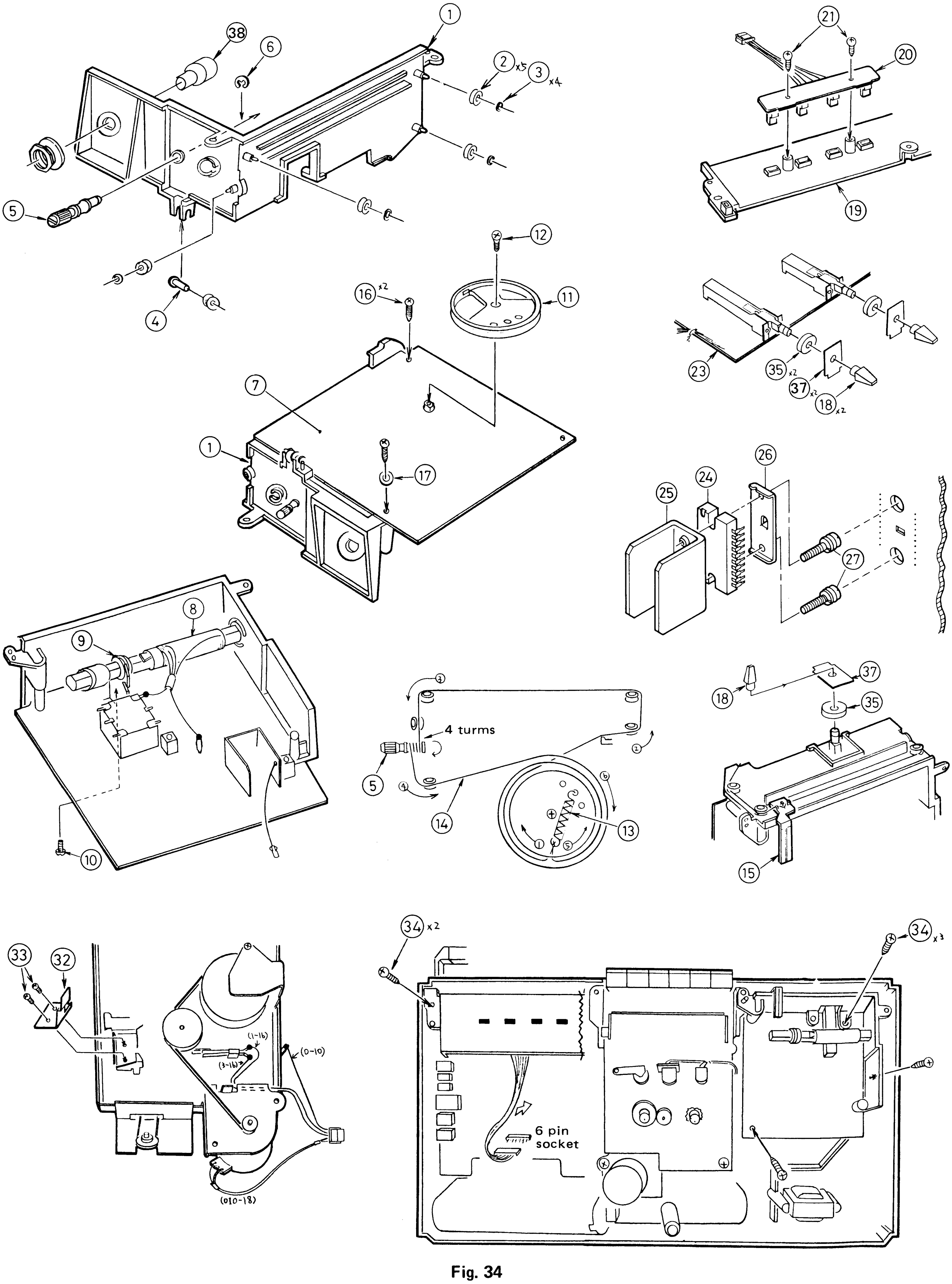

38
6
1
2 x5
3 x4
5
4
21
20
19
12
16 x2
11
7
1
17
23
35 x2
37 x2
18 x2
26
24
25
27
8
9
10
5
4 turms
14
13
15
18
37
35
33
32
(1-16)
(3-16)
(0-10)
(010-18)
34 x2
34 x3
6 pin
socket

Fig. 34

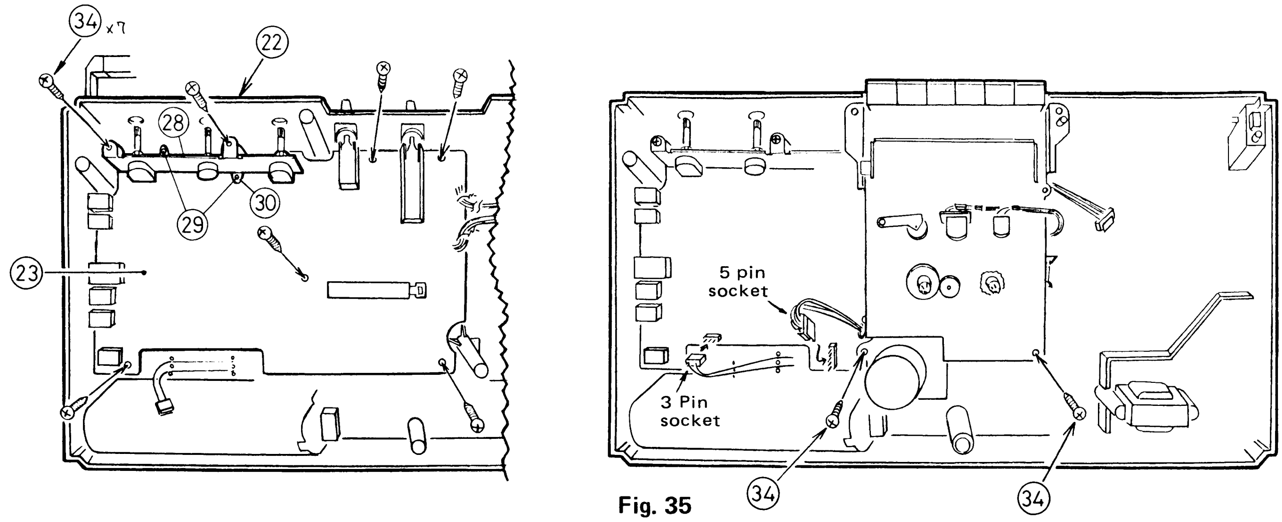


Fig. 35

Chassis Base Ass'y Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1	VYH2118-001	Chassis Base	D36	1
2	VYH4002-001	Roller		5
3	V42562-1	Special Washer		4
4	RTA4008	Rivet		1
5	VYH4009-004	Tuning Shaft		1
6	REE3000X	E Ring		1
7	–	P. W. Board Ass'y	Tuner	1
8	VQB012B-307T	Bar Antenna Ass'y	L4, 5	1
9	VYH4129-001	Bar Antenna Holder		1
10	SPSP3006ZS	Screw		1
11	QZD1108-002	Dial Drum		1
12	SSSP2608Z	Screw		1
13	50153-3	Spring		1
14	VHR2TT9-05A	Dial Rope	Tetoron ϕ0.5 x 795 mm	1 set
15	VJN4045-001	Needle		1
16	SBSF3010Z	Screw		2
17	Q03095-206	Washer		1
18	VXQ4026-003	Lever Cap		1
19	VJK2127-005	Dial Scale		1
20	–	P. W. Board	for LED (LN217RP = LED x 4)	1
21	SBSF3008Z	Tap. Screw		2
22	ZCR555LB-CBR	Rear Cabinet Ass'y		1 set
23	–	P. W. Board Ass'y	Amplifier	1
24	AN7146(H)	IC	IC301	1
25	VYH4295-002	Radiation		1
26	VYH4334-001	E. Plate		1
27	LPSP3012ZS	Screw		2
28	VYH4471-001	Volume Bracket		1
29	SPSP3006Z	Screw		2
30	WBS3000N	T. Lock Washer		1
32	VKY4176-001	Rec. Spring		1
33	SPSP2604Z	Screw		2
34	SBSF3012C	Tap. Screw	for R. Cabinet + Dial Scale	14
35	VYSH210-003	Spacer		3
37	VYTA452-001	"		3
38	VXKM520-20012	Fine Tuning Knob		1
39	QCS11HJ-151	C. Capacitor	C701 (150 pF 50 V)	1
40	VYSH208-002	Spacer		1
41	VYSH102-022	"		1
42	VYSA1R6-021	"		1

Tuner P.W. Board Parts

Tuner

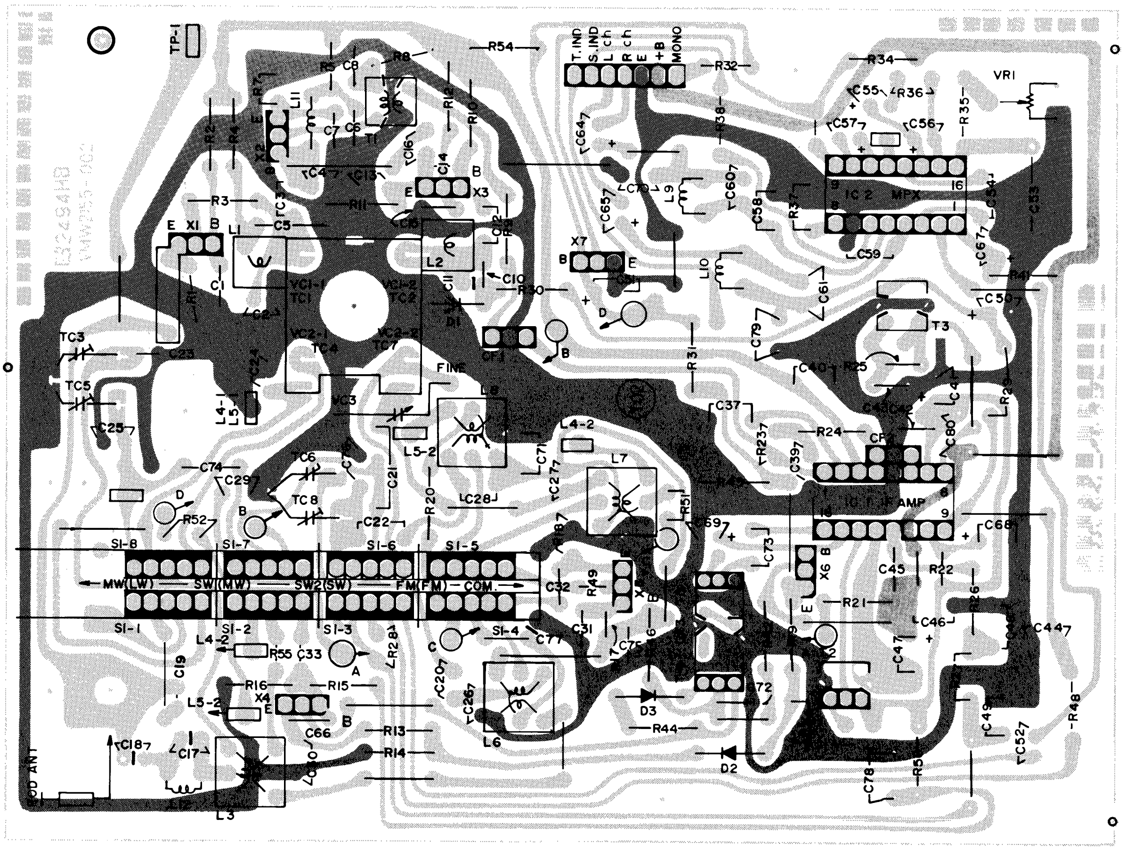
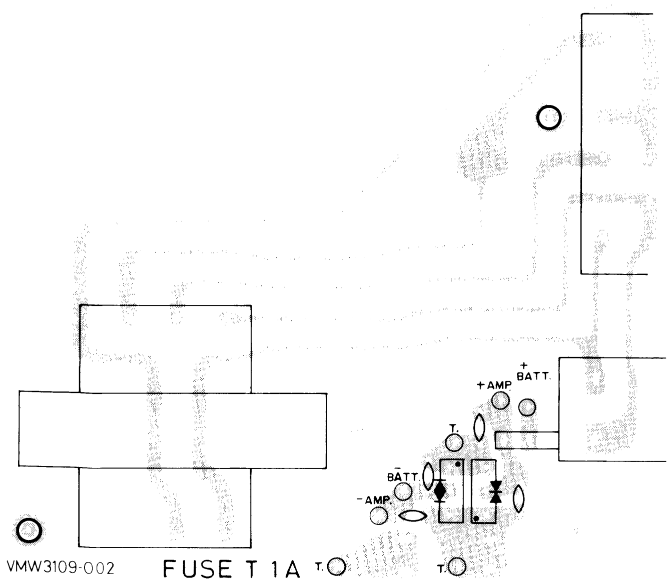

TP-1
T.IND
S.IND
L ch
R ch
E
+B
MONO
R54
R32
R34
VR1
C55
R36
R35
C57
C56
IC 2 MPX
C59
C67
C50
T3
C40
R25
C80
R8
R5
C8
R7
R2
R4
X2
L11
C7
C6
T1
R12
R10
C64
C16
C14
X3
C13
C4
R3
R11
C5
C18
C15
E X1 B
L1
L2
C10
R30
VC1-1
TC1
VC1-2
TC2
VC2-1
TC4
VC2-2
TC7
VC3
D1
R1
C1
C2
TC3
C23
TC5
C25
C24
L4-1
L5-1
FINE
L8
L4-2
L5-2
C21
C71
C27
C74
C29
TC6
TC8
R52
C22
R20
C28
L7
R187
R51
R49
C37
R237
R24
C39
CF
IC 1 I.F. AMP
C68
C73
X6
C45
R22
R21
C46
C47
C44
R26
C69
X7
L9
L10
C79
C60
C58
R37
C61
C65
R31
R38
R41
R29
S1-8
S1-7
S1-6
S1-5
MW(LW)
SW1(MW)
SW2(SW)
FM(FM)
COM.
S1-1
S1-2
S1-3
S1-4
C32
L4-2
R55
C33
R28
C20
C19
C31
C77
C75
R16
R15
X4
L5-2
C66
R13
R14
C26
L6
D3
R44
D2
C18
C17
C30
L3
L12
ANT
C72
C49
C52
C78
R5
R48
A
B
C
D
E

Fig. 36

▨ Positive line

▨ Common line

Power Supply


+AMP
+ BATT.
T.
BATT.
-AMP.
VMW3109-002
FUSE T 1A
T.
T.

Mic Wire Terminal

LED indicators

Clock circuit

Clock switches

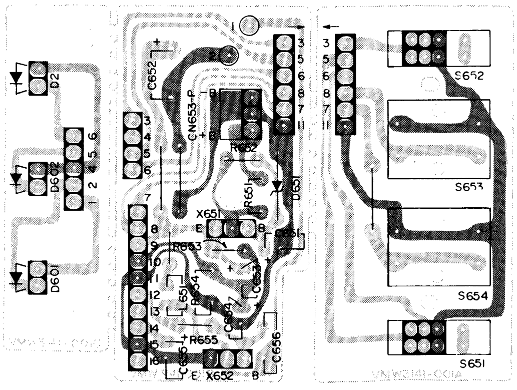

D2
D602
D601
1 2 4 5 6
C652
CN653-P
R652
R651
D651
X651
C651
R653
R654
L651
C653
C654
C656
C655
R655
X652
E
B
3
5
6
8
7
11
12
13
14
15
16
S652
S653
S654
S651
VMW3141-001A

Fig. 37

Tuner P.W. Board Parts List

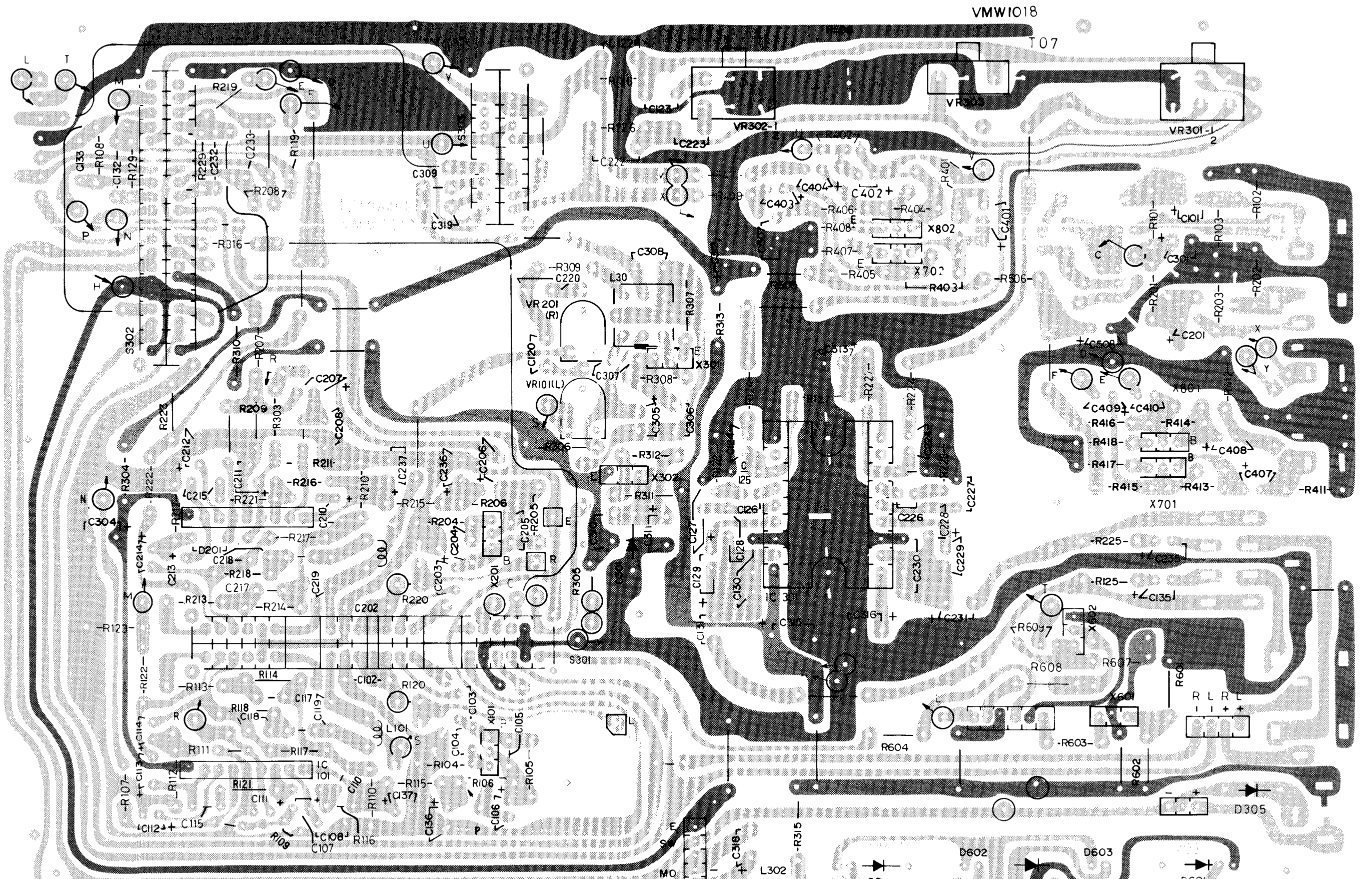
Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	VMW2155-002	P. W. Board		1
X1, 3	2SC930(E)	Transistor		2
X2	2SC1923(O)	″		1
X4	2SC460(B)	″		1
X5	2SC1675(L,K)	″		1
X6, 7	2SC945L(Q,P)	″		2
IC1	HA12413	I.C.		1
IC2	AN7410	″		1
D1	MA345	Vari. Cap.		1
D2	1S188FM	Ge. Diode		1
D3	HV80	Si. Diode		1
S1-1 ... 1-8	QSL8410-001	Lever Switch		1
	V44611-001	Formed Bus Wire		1
	″ -002	″		3
	″ -005	″		1
	″ -006	″		1
	VBP1M3B-001	B.P. Filter		1
CF1, 2	VCF2L3B-102	C. Filter		2
L1	V03105-031	RF Coil	FM	1
L2	″ -029	″	″	1
L3	VQR1014-301	″	SW	1
L4, 5	VQB012B-307T	Bar Ant. Ass'y		1
L6	VQS1T03-205	Osc. Coil	SW	1
L7	VQM1T03-301	″	MW	1
L8	VQL1T03-301	″	LW	1
L9, 10	VQP0002-393	Inductor		2
L11	03226-1K	″		1
L12	V03047-21	RF Coil		1
	VYH4129-001	Bar Ant. Holder		1
	SPSP3006ZS	Screw		1
T1	VQT7F12-104	IFT		1
T2	VQT7A11-301	″		2
T3	VQT7F07-501	″		1
T4, 5, CF3	V03067-026	″		1
	VYH4561-001	Shield		1
	VYH4369-002	″		2
VR1	QVP8A0B-014	V. Resistor	10 kΩ	1
R1, 15	QRD141J-332S	C. Resistor	3.3 kΩ ¼ W	2
R2, 10	″ -474S	″	470 kΩ ″	2
R3, 4, 8, 13	″ -101S	″	100 Ω ″	4
R5	″ -564S	″	560 kΩ ″	1
R7	″ -122S	″	1.2 kΩ ″	1
R9	″ -560S	″	56 Ω ″	1
R11	″ -152S	″	1.5 kΩ ″	1
R12	″ -331S	″	330 Ω ″	1
R14	″ -392S	″	3.9 kΩ ″	1
R16, 45	″ -682S	″	6.8 kΩ ″	2
R17	QRD143J-684S	″	680 kΩ ″	1
R18, 36	″ -102S	″	1 kΩ ″	2
R19	QRD141J-182S	″	1.8 kΩ ″	1
R20, 41	″ -100S	″	10 Ω ″	2
R21	″ -330S	″	33 Ω ″	1
R22	QRD143J-562S	″	5.6 kΩ ″	1
R23	″ -271S	″	270 Ω ″	1
R24	QRD141J-103S	″	10 kΩ ″	1
R25	QRD143J-103S	″	10 kΩ ″	1
R26	QRD141J-222S	″	2.2 kΩ ″	1
R27	″ -332S	″	3.3 kΩ ″	1
R28	QRD143J-682S	″	6.8 kΩ ″	1
R29, 30	QRD141J-104S	″	100 kΩ ″	2
R31	″ -223S	″	22 kΩ ″	1

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
R32	QRD143J-271S	C. Resistor	270 Ω ¼ W	1
R34	QRD141J-153S	″	15 kΩ ″	1
R35, 37	″ -183S	″	18 kΩ ″	2
R38	″ -102S	″	1 kΩ ″	1
R42, 46	″ -221S	″	220 Ω ″	2
R44	″ -273S	″	27 kΩ ″	1
R48	″ -272S	″	2.7 kΩ ″	1
R51	QRD143J-100S	″	10 Ω ″	1
R52	″ -822S	″	8.2 kΩ ″	1
R53	QRD141J-333S	″	33 kΩ ″	1
R54	″ -474S	″	470 kΩ ″	1
R56	″ -122S	″	1.2 kΩ ″	1
R58	QRD143J-101S	″	100 Ω ″	1
R59	″ -334S	″	330 kΩ ″	1
C1, 5	QCF11HP-472	C. Capacitor	0.0047 μF 50 V	2
C2	QCS11HJ-200	″	20 pF ″	1
C3, 17	″ -5R0	″	5 pF ″	2
C4	″ -150	″	15 pF ″	1
C6	″ -331	″	330 pF ″	1
C7, 8, 37, 74	QCF11HP-223	″	0.022 μF ″	4
C9	QCS11HJ-3R0	″	3 pF ″	1
C10, 12	QCT05CH-8R0	″	8 pF ″	2
C11	″ -220	″	22 pF ″	1
C13	″ -120	″	12 pF ″	1
C14	QCS11HJ-180	″	18 pF ″	1
C15, 32, 33, 49	QCY41HK-472	″	0.0047 μF ″	4
C16	QCS11HJ-6R0	″	6 pF ″	1
C18, 28	″ -390	″	39 pF ″	2
C20	QFS41HJ-392	P. Capacitor	0.0039 μF ″	1
C21	QCS11HJ-361	C. Capacitor	360 pF ″	1
C22	QFS21HJ-181	P. Capacitor	180 pF ″	1
C23	QCS11HJ-2R0	C. Capacitor	2 pF ″	1
C24	″ -100	″	10 pF ″	1
C25	″ -330	″	33 pF ″	2
C26	″ -2R0	″	2 pF ″	1
C27	″ -120	″	12 pF ″	1
C29, 48	QCC11EM-103	″	0.01 μF 25 V	2
C30, 34, 54, 71, 78	″ -473	″	0.047 μF ″	5
C31, 39, 43, 75	″ -223	″	0.022 μF ″	4
C40, 42, 46	QFM41HM-473	M. Capacitor	0.047 μF 50 V	3
C41	QET41AR-476	E.Capacitor	47 μF 10 V	1
C44	QCS11HJ-121	C.Capacitor	120 pF 50 V	1
C45	QFM41HM-103	M. Capacitor	0.01 μF ″	1
C47	QET41CR-227	E. Capacitor	220 μF 16 V	1
C50	QEC41HM-104	″	0.1 μF 50 V	1
C51	QET41HR-335	″	3.3 μF ″	1
C52	QEN41HA-105N	″	1 μF ″	1
C53	QFS21HJ-471	P. Capacitor	470 pF ″	1
C55	QEC41HM-474	E. Capacitor	0.47 μF ″	1
C56	″ -224	″	0.22 μF ″	1
C57, 64, 65	QET41HR-474	″	0.47 μF ″	3
C58, 59	QFM41HK-183	M. Capacitor	0.018 μF ″	2
C60, 61, 73	QCY41HK-182	C. Capacitor	0.0018 μF ″	3
C66	QCS11HJ-240	″	24 pF ″	1
C67	QET41AR-107	E. Capacitor	100 μF 10 V	1
C68	QET41HR-105	″	1 μF 50 V	1
C69	QET41CR-226	″	22 μF 16 V	1
C70, 79	QCS11HJ-151	C. Capacitor	150 pF 50 V	2
C72	QFM41HM-223	M. Capacitor	0.022 μF ″	1
C77	QCY41HK-272	C. Capacitor	0.0027 μF ″	1
C80	QCS11HJ-271	″	270 pF ″	1
C99	″ -471	″	470 pF ″	1
VC1-1, 1-2, VC2-1, 2-2, TC4, 7	QAP1224-515	V. Capacitor		1
VC3	QAT5001-203	M.V. Capacitor		1
TC3, 5, TC6, 8	QAT2002-001	T. Capacitor		2
CN1-P	QMV5005-007	Connector		1
	V44611-001	Formed Bus Wire		2
	″ -002	″		4
	″ -003	″		4
	″ -005	″		4
	″ -006	″		2
	VKL3143-001	Board in Tab		8

Power Supply P.W. Board Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	VMW3109-002	P.W. Board		1
D901, 902	DS131A	Si. Diode		1
D903, 904	DS132A	"		1
C901, 902, 903, 904	QCC11EM-223	C. Capacitor	0.022 μF 25 V	4
S901, J901	QMC0263-002	AC Jack		1
S902-1... 2	QSS2325-101	Slide Switch		1
T901	VTP48N2-90F	Power Transformer		1
C905	QET41CR-476	E. Capacitor	47 μF 16 V	1
	QMF51A2-1R0	Fuse		1
	VYH4598-001	Shield		1
	A44594-001	Fuse Clip		2
Other P.W. Board Parts List				
(LED)	VMW3141-001C	P.W. Board		1
D2, 601, 602	LN217RP	LED		3
(MIC)	VMW3110-002	P.W. Board	Mic. Wires	1

Amplifier P.W. Board Parts


VMW1018
T07
VR302-1
VR303
VR301-1
VR201 (R)
VR101(L)
IC301
IC101
X701
X801
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X702
X301
X302
X101
X201
X601
X602
S301
S302
L101
L301
L302
D201
D2
D602
D603
D601
D305
R219
R208
R316
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R209
R303
R211
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R121
R120
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R110
R107
R112
R116
R109
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R122
C202
C117
C102
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C106
C108
C107
C110
C111
C112
C115
C136
C137
R309
C220
R307
R308
R312
R311
R313
R306
R305
R315
C316
C307
C308
C309
C319
C305
C306
C301
C223
C222
R401
R406
R404
R408
R407
R405
R403
R506
C404
C402
C403
C401
R101
C101
R102
R103
C301
R201
R203
R202
C201
C509
C409
C410
R416
R414
R418
R417
R415
R413
R411
C408
C407
R225
R125
C135
C231
R609
R608
R607
R604
R603
R602
R601
C226
C227
C228
C229
C230
C127
C128
C129
C130
C131
R227
R127
R L R L
E
S
MO
L
T
M
P
N
H
U
V
W
X
Y
F
B
R
C

Fig. 38

Amplifier P.W. Board Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	VMW1018-203A	P.W. Board	Amp.	1
	V44611-001	Formed Bus Wire		8
	″ -002	″		12
	″ -005	″		5
	″ -006	″		2
S303-1 ... 12	QSSC201-106	Slide Switch	Record, Play	1
S302-1 ... 8	QSL8310-102	Lever Switch	T–R–L	1
S303-1 ... 4	QSL4310-014	″	Stereo-Mono.	1
X101, 201, 701, 801	2SD661(S)	Transistor	or 2SD661(T)	4
X301,302,601,602,702,802	2SD636(R)	″		6
D101, 201	MA150	Si. Diode		2
D301	HZ6B	Zener Diode		1
IC101, 201	BA333(V)	I.C.		2
IC301	AN7146(H)	″		1
	VYH4295-002	Radiation		1
	VYH4334-001	E. Plate		1
	LPSP3012ZS	Screw		2
VR101, 201	QVP8A0B-054	V. Resistor	Bias Adj. 50 kΩ	2
VR301-1, 2	QVD8A2A-024VM	″	Volume 20 kΩ	1
VR302-1, 2	QVD7A2A-024VM	″	Tone 20 kΩ	1
VR501	QVG4A2W-A54VM	″	Balance 50 kΩ	1
L101, 201	VQP0002-103	Inductor	Bias Trap	2
L301	V03083-020	Osc. Coil	Bias Osc.	1
L302	T41572-001	Inductor	Motor	1
C101,201,106,206,107,207, 114,214,401,402,403,404, 407,408,409,410	QET41HR-474	E. Capacitor	0.47 F 50 V	16
C102, 202	QCS11HJ-681	C. Capacitor	680 pF ″	2
C103, 203	QEB41EM-105	E. Capacitor	1 µF 25 V	2
C104, 204	QCF11EZ-102	C. Capacitor	0.001 µF ″	2
C105, 205	QCS11HJ-330	″	33 pF 50 V	2
C108, 208, 127, 227	QCY41HK-681	″	680 pF ″	4
C110, 210, 137, 237, 301, 507	QET41AR-107	E. Capacitor	100 µF 10 V	6
C111, 211, 113, 213	QET41ER-475	″	4.7 µF 25 V	4
C112, 212, 126, 226, 136, 236	QET41AR-476	″	47 µF 10 V	6
C115, 215, 120, 220	QCS11HJ-331	C. Capacitor	330 pF 50 V	4
C117, 217	QFM41HK-183	M. Capacitor	0.018 µF ″	2
C118, 218	QFM41HJ-182	″	0.0018 µF ″	2
C119, 219	QCS11HJ-471	C. Capacitor	470 pF ″	2
C122, 222	QCY41HK-472	″	0.0047 µF ″	2
C123, 223	QFM41HK-333	M. Capacitor	0.033 µF ″	2
C124, 224	QET41HR-105	E. Capacitor	1 µF ″	2
C125, 225	QCY41HK-222	C. Capacitor	0.0022 µF ″	2
C128, 228	QCS11HJ-301	″	300 pF ″	2
C129, 229	QET41AR-336	E. Capacitor	33 µF 10 V	2
C130, 230	QFM42AK-224	M. Capacitor	0.22 µF 100 V	2
C131, 231	QET41AR-108	E. Capacitor	1000 µF 10 V	2
C132, 232	QCS11HJ-301	C. Capacitor	300 pF 50 V	2
C133, 233	″ -241	″	240 pF ″	2
C135, 235	QET41HR-335	E. Capacitor	3.3 µF ″	2
C304	QET41AR-477	″	470 µF 10 V	1
C305, 313	″ -227	″	220 µF ″	2
C306, 310	QFM41HK-223	M. Capacitor	0.022 µF 50 V	2
C307	″ -392	″	0.0039 µF ″	1
C308	QCY41HK-821	C. Capacitor	820 pF ″	1
C309	QCS11HJ-820	″	82 pF ″	1
C311	QET41AR-337	E. Capacitor	330 µF 10 V	1
C312	QET41CR-477	″	470 µF 16 V	1
C315	″ -228	″	2200 µF ″	1
C316, 508	″ -476	″	47 µF ″	2
C318	″ -108	″	1000 µF ″	1
C319	QCS11HJ-251	C. Capacitor	250 pF ″	1

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
R101, 201, 316, 505, 506	QRD141J-222S	C. Resistor	2.2 kΩ ¼ W	5
R102, 202, 124, 224, 601	″ -102S	″	1 kΩ ″	5
R103, 203	″ -471S	″	470 Ω ″	2
R104, 204	″ -271S	″	270 Ω ″	2
R105, 205	″ -225S	″	2.2 MΩ ″	2
R106, 206	″ -682S	″	6.8 kΩ ″	2
R107, 207	″ -272S	″	2.7 kΩ ″	2
R109	QRD143J-333S	″	33 kΩ ″	1
R110, 210, 407, 408	QRD141J-101S	″	100 Ω ″	4
R111, 211	QRD121J-106	″	10 MΩ ½ W	2
R112, 212	QRD141J-393S	″	39 kΩ ¼ W	2
R113, 213, 123, 223, 309	″ -822S	″	8.2 kΩ ″	5
R114, 214	″ -124S	″	120 kΩ ″	2
R115, 215	″ -332S	″	3.3 kΩ ″	2
R116	QRD143J-474S	″	470 kΩ ″	1
R117, 217	QRD141J-153S	″	15 kΩ ″	2
R118, 218	″ -223S	″	22 kΩ ″	2
R119, 219	″ -273S	″	27 kΩ ″	2
R120, 220	QRD143J-100S	″	10 Ω ″	2
R121, 221, 409, 410	QRD141J-472S	″	4.7 kΩ ″	4
R122, 222	″ -683S	″	68 kΩ ″	2
R125, 225, 417, 418, 603	″ -101S	″	100 Ω ″	5
R126, 226	″ -103S	″	10 kΩ ″	2
R127, 227	″ -473S	″	47 kΩ ″	2
R128, 228	″ -121S	″	120 Ω ″	2
R129, 229, 108	″ -104S	″	100 kΩ ″	3
R208	QRD143J-104S	″	100 kΩ ″	1
R209, 308	QRD141J-333S	″	3.3 kΩ ″	2
R303	″ -564S	″	560 kΩ ″	1
R304, 313	″ -151S	″	150 Ω ″	2
R305	QRD143J-121S	″	120 Ω ″	1
R306	QRD146K-101	″	100 Ω ″	1
R307	″ -150	″	15 Ω ″	1
R310	″ -4R7	″	4.7 Ω ″	1
R311	″ -100	″	10 Ω ″	1
R312	QRD141J-331S	″	330 Ω ″	1
R315	QRD121J-1R0	″	1 Ω ½ W	1
R401, 402	QRD143J-473S	″	47 kΩ ¼ W	2
R403, 404	QRD121J-125S	″	1.2 MΩ ½ W	2
R405, 406	QRD141J-682S	″	6.8 kΩ ¼ W	2
R411, 412	″ -103S	″	10 kΩ ″	2
R413, 414, 216	″ -474S	″	470 kΩ ″	3
R415, 416	″ -123S	″	12 kΩ ″	2
R419, 420	″ -105S	″	1 MΩ ″	2
R608	″ -471S	″	470 Ω ″	1
R609	QRD143J-123S	″	12 kΩ ″	1
J101, 201, 102, 202	QMS3501-014	Jack Ass'y		4
J301	QMA0921-005	Ext. Batt. Jack		1
J302	QMS6312-004	Headphone Jack		1
J501	QMC9014-006	DIN Socket		1
	VKL3143-001	Board in Tab		3
CN302-P	QMV5005-004	Connector	Speaker	1
	V44691-001	Wire Clamp		4
CN303-P	QMV5005-003	Connector	Power	1
CN304-P	″ -005	″	Mecha.	1
CN305-P	″ -006	″	LED	1

Clock Circuit Parts

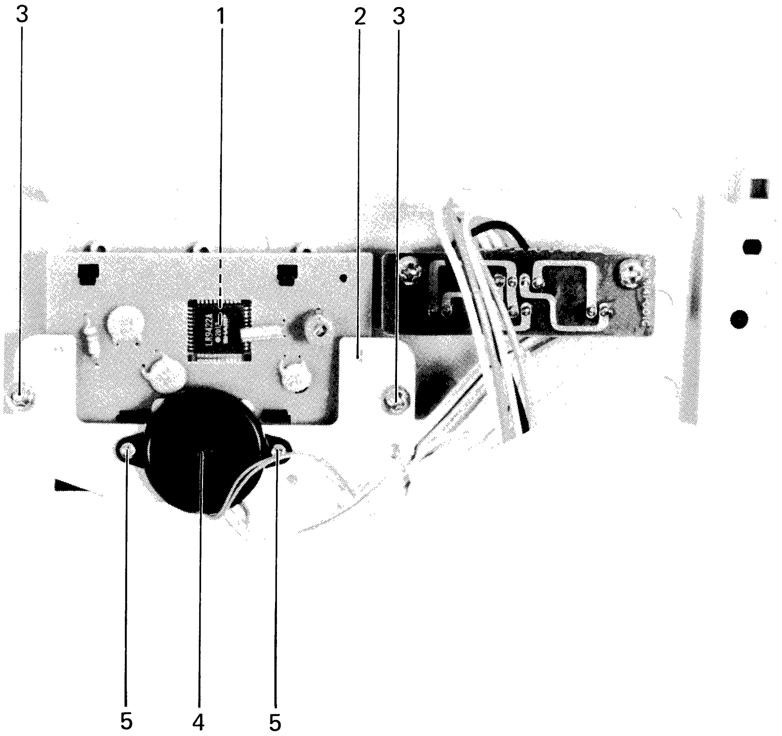


Fig. 39

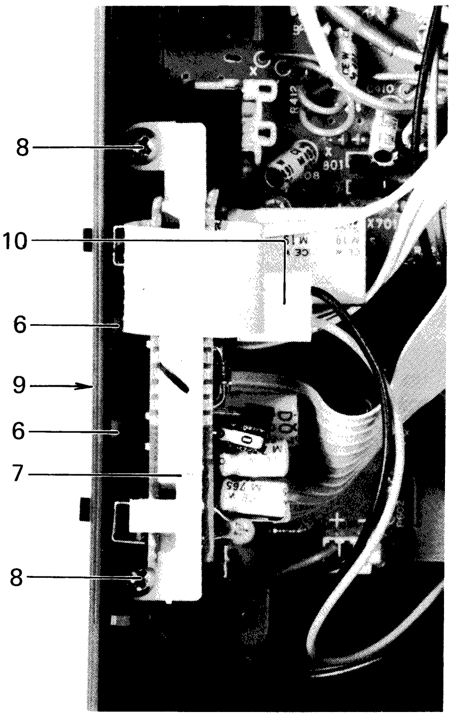
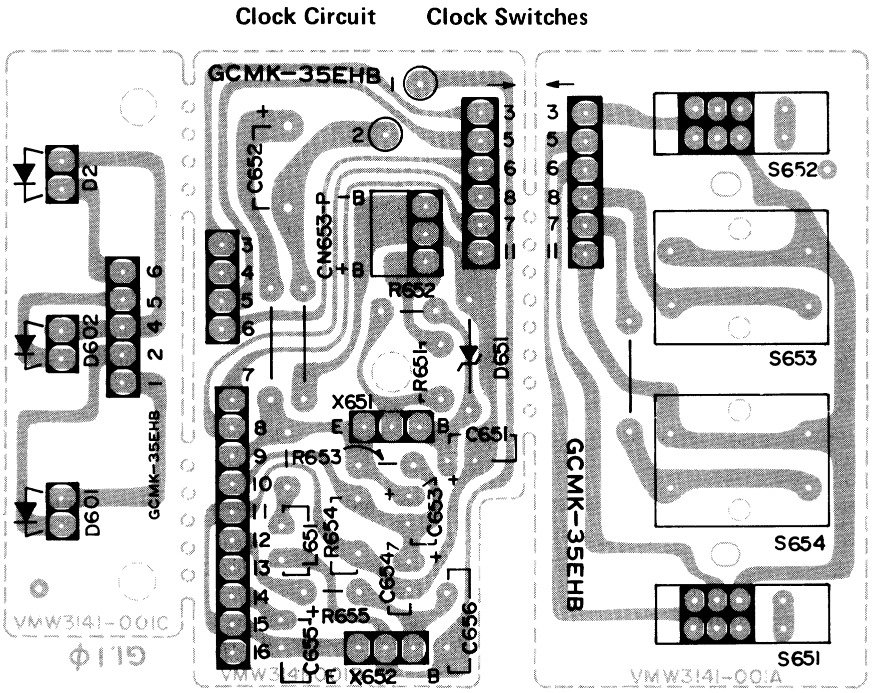


Fig. 40

Clock Relation Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1	LX-3419V	Clock		1
2	VYH4752-001	Clock Holder		1
3	SBSF3008Z	Tap. Screw		2
4	EFB-RC24C09	Piezoelectric Buzzer		1
5	SPSP2006Z	Tap. Screw		2
6	VXP4134-001	Push Knob		2
7	VYH2129-001	Board Holder		1
8	SBSF3012Z	Tap. Screw		2
9	VJD4501-001	Plate		1
10		Connector	CN652	1
	VYTS406-001	Spacer	for P.W.B.	1
	VYSA1R6-009	"	for Switch	1

Clock P.W. Board Parts



Clock Circuit Clock Switches

GCMK-35EHB
C652
CN653-P
R652
R651
D651
X651
C651
R653
L651
R654
C653
C654
C655
R655
X652
C656
D2
D602
D601
S652
S653
S654
S651
VMW3141-001C
VMW3141-001A
φ115

Fig. 41

Switch P.W.B. Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	VMW3141-002A	P.W. Board		1
	V44611-002	Formed Bus Wire		1
S653, 654	QSP0022-004	Push Switch		2
S652		Slide Switch		1
S651		"		1

Clock Circuit P.W.B. Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	VMW3141-002B	P.W. Board		1
X651, 652	2SC536(F)	Transistor		2
D651	HZ3C3	Zener Diode		1
R651	QRD187J-221A	C. Resistor	220 Ω 1/8 W	1
R652	" -561A	"	560 Ω "	1
R653, 654	" -334A	"	330 kΩ "	2
R655	" -332A	"	3.3 kΩ "	1
R656	QRD143J-221S	"	220 Ω 1/4 W	1
L651	VQP0001-103	Inductor		1
C651	QEK41EM-475	E. Capacitor	4.7 μF 25 V	1
C652	QET41AR-228	"	2200 μF 10 V	1
C653, 654	" -107	"	100 μF "	2
C655	QET41HR-105	"	1 μF 50 V	1
C656	QCF11EZ-102	C. Capacitor	0.001 μF "	1
C657–660	QCC11EM-223	"	0.022 μF 25 V	4
	VWP406-05A2A2	P.C. Joiner		1
	V44611-002	Formed Bus Wire		2
CN653-P	QMV5005-003	Connector		1

Packing

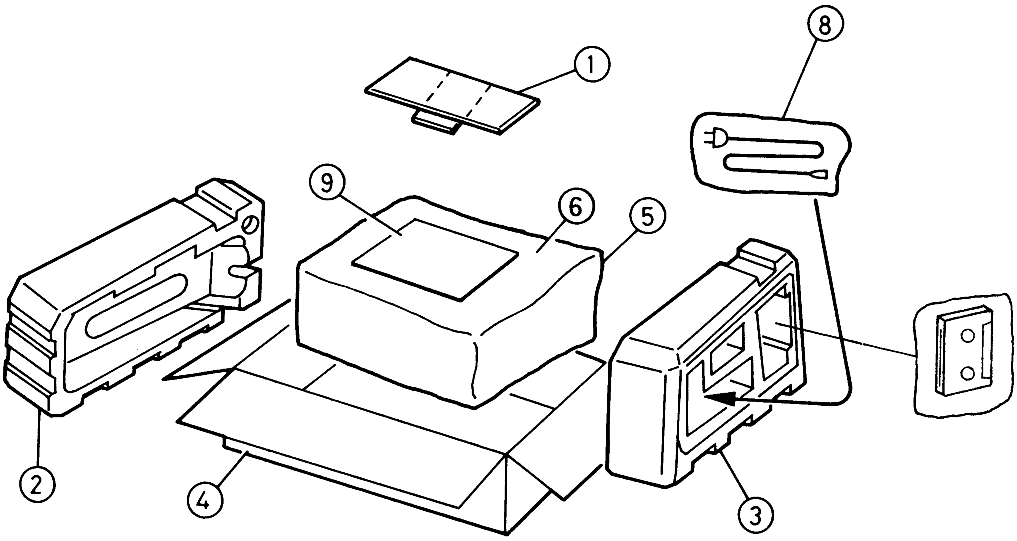


Fig. 42

Packing Material Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1	VPH4101-003	Door Protector		1
2	VPH1204-002	Side Cushion	Left	1
3	VPH1198-001	"	Right	1
4	VPD5062-	Carton		1
5	QPGA060-05005	Poly Bag		1
6	VHPJ079-036	Paper Sheet		1
8	QPGA012-01505	Poly Bag	for PX EES	2
9	QPGB024-03404	"	for Instruction Book	1

Accessories

Parts No.	Parts Name	Remarks	Q'ty
VGT12S2-J05	Cassette Tape		1
QMP3950-183	Power Cord		1
VYA4001-00A	Head Cleaning Stick		1
VNC6305-001	Trouble Shooting		1
VNM0818-301	Instruction Book		1
53866-2	Label		1

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